

Copy No. _____

Prospective Investor: _____

CONFIDENTIAL PRIVATE PLACEMENT MEMORANDUM

TROCAR PHARMA, INC.

A Delaware Corporation

\$40,000,000 SERIES A EQUITY OFFERING

400 Units of Series A Convertible Preferred Stock

\$100,000 Per Unit | Minimum Investment: \$100,000

CAPITAL CONSULTANT & SPONSORING FUND:

TRIUNITY CAPITAL VENTURES, LLC

A Wyoming Limited Liability Company | www.bankabledeals.com

April 2026

*RadShield™ (YK-4-250) | First-in-Class GI-ARS Radiation Mitigant | Georgetown University
Exclusive License*

*DoD/AFRRRI Validated | Pre-IND Meeting Completed with FDA | FDA Animal Rule Approval
Pathway*

Contact: Derrick Phelps | derrick@bankabledeals.com | 702-862-0634

NOTICES RELATING TO U.S. SECURITIES LAWS

THE SECURITIES TO BE OFFERED AND SOLD HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR ANY STATE SECURITIES ACT. THE SECURITIES ARE BEING OFFERED AND SOLD IN RELIANCE ON EXEMPTIONS FROM THE REGISTRATION REQUIREMENTS OF SUCH ACTS. THE SECURITIES ARE BEING OFFERED AND SOLD ONLY TO BONA FIDE ACCREDITED INVESTORS WHO CAN MEET CERTAIN REQUIREMENTS, INCLUDING NET WORTH AND INCOME REQUIREMENTS, AND WHO PURCHASE THE SECURITIES WITHOUT A VIEW TO DISTRIBUTION OR RESALE.

INVESTMENT IN THE SECURITIES HAS NOT BEEN APPROVED OR DISAPPROVED BY THE SEC OR ANY OTHER REGULATORY AUTHORITY, NOR HAS ANY AUTHORITY PASSED UPON OR ENDORSED THE MERITS OF THE OFFERING OR THE ACCURACY OR ADEQUACY OF THIS MEMORANDUM. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE. THE MEMORANDUM DOES NOT CONSTITUTE AN OFFER OR SOLICITATION TO ANYONE IN ANY STATE OR IN ANY OTHER JURISDICTION IN WHICH SUCH OFFER OR SOLICITATION IS NOT AUTHORIZED. IN ADDITION, THE MEMORANDUM CONSTITUTES AN OFFER ONLY IF RECEIVED FROM AN AUTHORIZED REPRESENTATIVE OF THE COMPANY.

THE OFFERING IS BEING MADE IN RELIANCE UPON THE AVAILABILITY OF AN EXEMPTION FROM THE REGISTRATION PROVISIONS OF THE SECURITIES ACT BY VIRTUE OF THE INTENDED COMPLIANCE WITH THE PROVISIONS OF REGULATION D AND SECTION 4(a)(2) OF SUCH ACT. NO PERSON HAS BEEN AUTHORIZED IN CONNECTION WITH THE OFFERING TO GIVE ANY INFORMATION OR MAKE ANY REPRESENTATIONS OTHER THAN THOSE CONTAINED IN THE MEMORANDUM AND, IF GIVEN OR MADE, SUCH INFORMATION AND REPRESENTATIONS MUST NOT BE RELIED UPON. UNDER NO CIRCUMSTANCES SHALL THE DELIVERY OF THE MEMORANDUM OR SALE MADE HEREUNDER CREATE ANY IMPLICATION THAT THERE HAS BEEN NO CHANGE IN THE FACTS OR THE AFFAIRS OF THE COMPANY SINCE THE DATE HEREOF, OR THAT THE INFORMATION CONTAINED HEREIN IS CORRECT AS OF ANY TIME SUBSEQUENT TO THE DATE OF THE MEMORANDUM. HOWEVER, IF ANY MATERIAL ADVERSE CHANGE OCCURS PRIOR TO THE TERMINATION OF THE OFFERING OF THE SECURITIES, THE MEMORANDUM WILL BE AMENDED OR SUPPLEMENTED ACCORDINGLY.

NOTICE TO ALL STATES: IN MAKING AN INVESTMENT DECISION, INVESTORS MUST RELY ON THEIR OWN EXAMINATION OF THE COMPANY AND THE TERMS OF THE OFFERING, INCLUDING THE MERITS AND RISKS INVOLVED. THESE SECURITIES HAVE NOT BEEN RECOMMENDED BY ANY FEDERAL OR STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY. FURTHERMORE, THE FOREGOING AUTHORITIES HAVE NOT CONFIRMED THE ACCURACY OR DETERMINED THE ADEQUACY OF THIS DOCUMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE. THESE SECURITIES ARE SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AND RESALE AND MAY NOT BE TRANSFERRED OR RESOLD EXCEPT AS PERMITTED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND THE APPLICABLE STATE SECURITIES LAWS, PURSUANT TO REGISTRATION OR EXEMPTION THEREFROM. INVESTORS SHOULD BE AWARE THAT THEY WILL BE REQUIRED TO BEAR THE FINANCIAL RISKS OF THIS INVESTMENT FOR AN INDEFINITE PERIOD OF TIME.

NASAA UNIFORM LEGEND: IN MAKING AN INVESTMENT DECISION INVESTORS MUST RELY ON THEIR OWN EXAMINATION OF THE COMPANY AND THE TERMS OF THE OFFERING, INCLUDING THE

MERITS AND RISKS INVOLVED. THESE SECURITIES HAVE NOT BEEN RECOMMENDED BY ANY FEDERAL OR STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY. FURTHERMORE, THE FOREGOING AUTHORITIES HAVE NOT CONFIRMED THE ACCURACY OR DETERMINED THE ADEQUACY OF THIS DOCUMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE. THESE SECURITIES ARE SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AND RESALE AND MAY NOT BE TRANSFERRED OR RESOLD EXCEPT AS PERMITTED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND THE APPLICABLE STATE SECURITIES LAWS, PURSUANT TO REGISTRATION OR EXEMPTION THEREFROM. INVESTORS SHOULD BE AWARE THAT THEY WILL BE REQUIRED TO BEAR THE FINANCIAL RISKS OF THIS INVESTMENT FOR AN INDEFINITE PERIOD OF TIME.

NOTICE TO FOREIGN INVESTORS: IF YOU LIVE OUTSIDE THE UNITED STATES, IT IS YOUR RESPONSIBILITY TO FULLY OBSERVE THE LAWS OF ANY RELEVANT TERRITORY OR JURISDICTION OUTSIDE THE UNITED STATES IN CONNECTION WITH ANY PURCHASE, INCLUDING OBTAINING REQUIRED GOVERNMENTAL OR OTHER CONSENTS OR OBSERVING ANY OTHER REQUIRED LEGAL OR OTHER FORMALITIES. NEITHER THE SEC NOR ANY STATE SECURITIES REGULATORY AUTHORITY HAS PASSED ON THE MERITS OF OR GIVEN ITS APPROVAL TO ANY SECURITIES OFFERED OR THE TERMS OF THE OFFERING, NOR HAS EITHER PASSED ON THE ACCURACY OR COMPLETENESS OF THIS MEMORANDUM. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

REQUIRED NOTICE — HIGH RISK VENTURE: THIS COMPANY IS IN AN EARLY DEVELOPMENT STAGE IN A HIGH-RISK PHARMACEUTICAL BUSINESS. INVESTORS WHO CANNOT AFFORD A HIGH-RISK INVESTMENT THAT MAY BE LOST IN ITS ENTIRETY ARE ADVISED AGAINST AN INVESTMENT IN THE COMPANY. AN INVESTMENT IN THE SECURITIES INVOLVES A HIGH DEGREE OF RISK AND SHOULD BE CONSIDERED ONLY BY PERSONS WHO CAN AFFORD TO SUSTAIN A COMPLETE LOSS OF THEIR ENTIRE INVESTMENT. SEE "RISK FACTORS."

RESTRICTIONS ON TRANSFER: TRANSFER OF THE SECURITIES IS SPECIFICALLY RESTRICTED BECAUSE THE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT. THESE SECURITIES ARE BEING SOLD IN RELIANCE UPON REGULATION D, RULE 506(b), AND THE NATIONAL SECURITIES MARKETS IMPROVEMENTS ACT OF 1996 (NSMIA). THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF ANY STATE AND CANNOT BE RESOLD UNLESS THEY ARE REGISTERED UNDER SUCH ACTS OR UNLESS AN EXEMPTION FROM REGISTRATION IS AVAILABLE. THE SALE AND TRANSFERABILITY OF SUCH SECURITIES ARE RESTRICTED. THIS OFFERING INVOLVES A HIGH DEGREE OF RISK.

TREASURY DEPARTMENT CIRCULAR 230 NOTICE: TO ENSURE COMPLIANCE WITH CIRCULAR 230, INVESTORS ARE HEREBY NOTIFIED THAT: (I) ANY DISCUSSION OF FEDERAL TAX ISSUES CONTAINED OR REFERENCED IN THIS MEMORANDUM IS NOT INTENDED OR WRITTEN TO BE USED, AND CANNOT BE USED, BY INVESTORS FOR THE PURPOSE OF AVOIDING PENALTIES THAT MAY BE IMPOSED ON THEM UNDER THE INTERNAL REVENUE CODE OF 1986, AS AMENDED; (II) ANY SUCH DISCUSSION IS MADE IN CONNECTION WITH THE PROMOTION AND MARKETING BY THE ISSUER OF THE TRANSACTIONS ADDRESSED IN THIS MEMORANDUM; AND (III) INVESTORS SHOULD SEEK ADVICE BASED ON THEIR PARTICULAR CIRCUMSTANCES FROM AN INDEPENDENT TAX ADVISER.

NO UNAUTHORIZED REPRESENTATIONS: NO PERSON HAS BEEN AUTHORIZED TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS OTHER THAN THOSE CONTAINED IN THIS MEMORANDUM. IF GIVEN OR MADE, SUCH INFORMATION AND REPRESENTATIONS MUST NOT BE RELIED UPON. THIS MEMORANDUM AND ITS EXHIBITS SHALL CONSTITUTE THE FULL, COMPLETE AND EXCLUSIVE STATEMENT AS TO THE TERMS AND CONDITIONS IN CONNECTION WITH THE OFFER, SALE AND PURCHASE OF UNITS HEREIN, AND SUPERSEDES ALL PRIOR UNDERTAKINGS, REPRESENTATIONS, COMMUNICATIONS, AND AGREEMENTS WITH RESPECT TO THE SUBJECT MATTER HEREOF. THE COMPANY RESERVES THE RIGHT TO WITHDRAW OR AMEND FOR ANY REASON THE OFFERING AND TO REJECT ANY SUBSCRIPTION AGREEMENT FOR ANY REASON.

NO REFUNDS: EXCEPT IN THE SOLE AND ABSOLUTE DISCRETION OF THE COMPANY, AND SUBJECT TO APPLICABLE LAW, ONCE AN INVESTOR HAS PURCHASED UNITS IN THIS OFFERING AND ONCE SUCH AN INVESTOR HAS BEEN ACCEPTED BY THE COMPANY, THEN INVESTORS IN THIS OFFERING MAY NOT RECEIVE, NOR EXPECT TO RECEIVE, A REFUND OF THEIR INVESTMENT AT ANY TIME.

DISCLOSURE OF FORWARD-LOOKING STATEMENTS: THIS MEMORANDUM INCLUDES "FORWARD-LOOKING STATEMENTS" WITHIN THE MEANING OF VARIOUS PROVISIONS OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED. ALL STATEMENTS, OTHER THAN STATEMENTS OF HISTORICAL FACTS, INCLUDING FUTURE REVENUES, POTENTIAL MARKET SIZE, REGULATORY APPROVAL TIMELINES, CLINICAL TRIAL OUTCOMES, PROJECT DEVELOPMENT, MARKET ACCEPTANCE, AND CAPITAL EXPENDITURES, ARE FORWARD-LOOKING STATEMENTS. THESE STATEMENTS ARE ONLY PREDICTIONS AND INVOLVE KNOWN AND UNKNOWN RISKS, UNCERTAINTIES AND OTHER FACTORS THAT MAY CAUSE ACTUAL RESULTS TO DIFFER MATERIALLY. THE COMPANY UNDERTAKES NO OBLIGATION TO PUBLICLY UPDATE ANY FORWARD-LOOKING STATEMENTS, WHETHER AS A RESULT OF NEW INFORMATION, FUTURE EVENTS OR OTHERWISE.

PROSPECTIVE PURCHASERS ARE NOT TO CONSTRUE THE CONTENTS OF THIS MEMORANDUM AS LEGAL, INVESTMENT, OR TAX ADVICE. PROSPECTIVE PURCHASERS SHOULD CONSULT THEIR ADVISORS AS TO LEGAL, INVESTMENT, TAX AND OTHER RELATED MATTERS CONCERNING AN INVESTMENT BY SUCH PROSPECTIVE PURCHASER IN THE COMPANY. NEITHER THE INFORMATION CONTAINED HEREIN, NOR ANY PRIOR, CONTEMPORANEOUS OR SUBSEQUENT COMMUNICATION SHOULD BE CONSTRUED BY THE INVESTOR AS TAX, LEGAL OR INVESTMENT ADVICE. EACH INVESTOR SHOULD CONSULT HIS, HER OR ITS OWN LEGAL, TAX AND FINANCIAL ADVISERS TO ASCERTAIN THE MERITS AND RISKS OF THE TRANSACTIONS DESCRIBED HEREIN PRIOR TO PURCHASING THE UNITS. NO RULINGS HAVE BEEN SOUGHT FROM THE IRS WITH RESPECT TO ANY TAX MATTERS DISCUSSED IN THIS MEMORANDUM.

THIS MEMORANDUM HAS BEEN PREPARED IN CONNECTION WITH THE CONFIDENTIAL PRIVATE PLACEMENT OF THE SECURITIES AND MAY NOT BE REPRODUCED OR USED FOR ANY OTHER PURPOSE. IF ANY PERSON ELECTS NOT TO MAKE AN OFFER TO ACQUIRE SECURITIES OFFERED HEREBY OR SUCH OFFER IS REJECTED IN WHOLE OR IN PART BY THE COMPANY, SUCH PERSON, BY ACCEPTING DELIVERY OF THIS MEMORANDUM, AGREES TO RETURN THIS MEMORANDUM AND ALL SUCH RELATED DOCUMENTS TO THE COMPANY AT ITS PRINCIPAL PLACE OF BUSINESS.

CONFIDENTIALITY

All information contained in this Private Placement Memorandum (this "Memorandum") is confidential and the property of Trocar Pharma, Inc. (the "Company"). TriUnity Capital Ventures, LLC, a Wyoming limited liability company, is engaged as Capital Consultant and Sponsoring Fund in connection with this Offering. TriUnity Capital Ventures, LLC is not a registered broker-dealer or FINRA-registered investment adviser, does not receive transaction-based compensation in connection with this Offering, and does not act as a placement agent. TriUnity promotes this Offering through its own fund and investor network in a consulting capacity only.

BY ACCEPTING DELIVERY OF THIS MEMORANDUM, YOU ACKNOWLEDGE AND AGREE THAT ALL OF THE INFORMATION CONTAINED HEREIN IS OF A CONFIDENTIAL NATURE AND THAT THIS MEMORANDUM HAS BEEN FURNISHED TO YOU SOLELY FOR YOUR CONFIDENTIAL USE FOR THE PURPOSE OF ENABLING YOU TO CONSIDER AND EVALUATE AN INVESTMENT IN THE OFFERED SECURITIES. YOU AGREE THAT YOU WILL TREAT SUCH INFORMATION IN A CONFIDENTIAL MANNER, WILL NOT USE SUCH INFORMATION FOR ANY PURPOSE OTHER THAN EVALUATING AN INVESTMENT IN THE OFFERED SECURITIES, AND WILL NOT, DIRECTLY OR INDIRECTLY, DISCLOSE OR PERMIT YOUR AGENTS OR AFFILIATES TO DISCLOSE ANY OF SUCH INFORMATION WITHOUT THE PRIOR WRITTEN CONSENT OF THE COMPANY.

You also agree to make your representatives aware of the terms of this paragraph and to be responsible for any breach of this agreement by such representatives. Likewise, without the prior written consent of the Company, you agree that you will not, directly or indirectly, make any statements, any public announcements, or any release to any trade publication or to the press with respect to the subject matter of this Memorandum. If you decide not to pursue further investigation of an investment in the Offering or to not participate in the Offering, you agree to promptly return this Memorandum and any accompanying documentation to the Company.

This Memorandum may not be reproduced, in whole or in part, and it is accepted with the understanding that this Memorandum will be returned if the recipient does not purchase the securities offered herein. This Offering is subject to withdrawal, cancellation, or modification by the Company without notice. The Company reserves the right in its sole discretion to reject any subscription, in whole or in part, of Units subscribed for. The Company has the right to accept subscriptions for less than the minimum purchase amount in its sole discretion.

This Memorandum and its Exhibits, shall constitute the full, complete and exclusive statement as to the terms and conditions in connection with the offer, sale and purchase of Units herein and supersedes, merges, cancels and overrides, in all respects, any and all prior and contemporaneous undertakings, representations, communications, correspondence, understandings and agreements, if any, with respect to the subject matter hereof, whether such be written or oral. The prospective purchaser should be aware and acknowledges and agrees that he or she has not otherwise relied upon or construed any representation or other statement, oral or written, or inference, in entering into or executing the Subscription Agreement pertinent to this Memorandum that is not set out expressly herein.

Before purchasing any of the Securities, you should carefully read and consider the risk factors described herein. You should be prepared to accept any and all of the risks associated with purchasing the Securities, including a loss of all of your investment. This Confidential Private Placement Memorandum includes forward-looking statements about our business, including

statements about our plans, strategies and objectives. We caution that forward-looking statements are not guarantees. You should not rely on these forward-looking statements because the matters they describe are subject to known and unknown risks, uncertainties and other unpredictable factors, many of which are beyond our control.

TROCAR PHARMA, INC. — SERIES A PREFERRED STOCK OFFERING

Trocar Pharma, Inc. (the “Company,” “we,” “us,” or “our”) is offering (the “Offering”) up to a maximum of forty million dollars (\$40,000,000) (the “Maximum Offering Amount”) of Series A Convertible Preferred Stock, \$100,000 per Unit (the “Units”). Upon full subscription, the Series A Shares will represent thirty percent (30%) of the fully diluted capitalization of the Company, implying a pre-money valuation of approximately \$93,333,333 and a post-money valuation of approximately \$133,333,333. The Units are being offered on a “best efforts” basis pursuant to the terms and conditions set forth in this Confidential Private Placement Memorandum (this “Memorandum”). The Company shall receive and begin to use proceeds from this Offering on a rolling basis. Investments in this Offering will be due and payable to the Company immediately upon the execution and acceptance of the required offering documentation. You should read this Memorandum carefully and in its entirety prior to investing in our Units.

The Offering and sale of Units is being consummated as a private placement of securities pursuant to Section 4(a)(2) of the Securities Act of 1933, as amended (“Securities Act”), and Regulation D promulgated thereunder (“Regulation D”). Only persons who are “Accredited Investors” (as defined in Rule 501 of Regulation D and herein below) may purchase Units, and the Units may only be purchased as permitted by Rule 506(b) of Regulation D. The Offering shall commence as of the date of this Memorandum and, unless terminated earlier by the Company in its sole discretion, will terminate upon the first to occur of (i) the sale of the Maximum Offering Amount of Units, or (ii) twelve (12) months from the date of this Memorandum (the “Initial Offering Period”), which period may be extended in the sole discretion of the Company. The Company reserves the right to terminate this Offering for any reason at any time. The Company reserves the right, at any time, to cancel this Offering, amend its terms, or increase or decrease the number of Units to be sold hereunder.

Dual-Class Capital Structure and Founder Control

IMPORTANT NOTICE REGARDING FOUNDER VOTING CONTROL: The Company maintains a dual-class capital structure. Milton Brown M.D., PhD, the Company's founder and Chairman, holds Class B Common Stock carrying ten (10) votes per share (the “Super Voting Shares”). All other stockholders, including holders of the Series A Preferred Stock being offered hereby (which converts to Class A Common Stock), hold or will hold Class A Common Stock carrying one (1) vote per share. As a result, Milton Brown M.D., PhD retains majority voting control over all stockholder matters regardless of the number of Series A Units sold in this Offering. Additionally, Milton Brown Sr., PhD is irrevocably designated as Chairman of the Board of Directors under the Company's Certificate of Incorporation and Stockholders Agreement, a designation that cannot be removed by any vote of the Board or stockholders without the Founder's written consent. Prospective investors should carefully review the “Risk Factors — Founder Control and Dual-Class Voting Structure” section of this Memorandum before making an investment decision.

OFFERING PARAMETER	DETAIL
Issuer	Trocar Pharma, Inc., a Delaware Corporation
Capital Consultant	TriUnity Capital Ventures, LLC, a Wyoming Limited Liability Company (not a registered broker-dealer or placement agent)
Security Offered	Series A Convertible Preferred Stock ("Units")
Maximum Offering Amount	\$40,000,000 (400 Units at \$100,000 per Unit)
Equity Offered (at Max)	30% of fully diluted capitalization (each \$100,000 Unit = 0.075%)
Offering Valuation	Pre-Money: ~\$93,333,333 Post-Money: ~\$133,333,333
Price Per Unit	\$100,000
Minimum Investment Per Investor	\$100,000 (one Unit); no fractions below \$100,000 without Company consent
Offering Basis	Best efforts; no minimum offering; proceeds used on rolling basis upon acceptance
Offering Exemption	Section 4(a)(2) of the Securities Act of 1933 and Rule 506(b) of Regulation D
Eligible Investors	Accredited Investors only as defined under Rule 501(a) of Regulation D
Liquidation Preference	1.5x on invested capital, senior to all common stockholders
Conversion	Converts to common stock upon qualified IPO, acquisition, or majority Series A holder election
Anti-Dilution	Weighted average, broad-based; 12-month down-round protection per SPA terms
Board Rights	One Series A director seat; one non-voting board observer right
Information Rights	Quarterly unaudited financials (45 days); annual reporting (120 days)
Pre-Emptive Rights	Pro-rata participation rights in future financings
Offering Period	12 months from date of Memorandum; extendable at Company discretion
Governing Law	State of Delaware
Transfer Agent	To be engaged prior to or at Closing

TABLE OF CONTENTS

NOTICES RELATING TO U.S. SECURITIES LAWS	3
CONFIDENTIALITY	5
OFFERING TERMS COVER SHEET	6
TABLE OF CONTENTS	7
BUSINESS SUMMARY	8
Corporate Background and Overview	8
The Critical Unmet Medical Need	9
The RadShield™ Solution	10
Why RadShield™ Now — Strategic Imperative	11
RADSHIELD™ — THE PRODUCT	13
Mechanism of Action (YK-4-250)	13
Preclinical Data and DoD/AFRRI Studies	14
Oral Delivery — The Decisive Differentiator	15
Development Pipeline — Beyond GI-ARS	16
REGULATORY PATHWAY	17
FDA Animal Rule Approval Framework	17
Approved Precedent MCMs Under Animal Rule	18
Current Regulatory Status and Next Steps	18
FDA Animal Rule IND Submission Timeline	19
MARKET OPPORTUNITY	20
Market 1 — U.S. Strategic National Stockpile	20
Allied Nation National Stockpiles	21
Market 2 — U.S. Military Community (All Branches)	22
NATO and Allied Military Forces	23
Market 3 — Homeland Security First Responders	24
Allied Nation First Responders	25
Consolidated Global TAM Analysis	26
SAM, SOM and Serviceable Revenue Model	27
Additional Commercial Markets	28
COMPETITIVE LANDSCAPE	29
THE COMPANY AND MANAGEMENT	31
Corporate History and Structure	31
Georgetown University Exclusive License Agreement	32
Leadership Team Biographies	33
Board of Directors	36
Strategic Research Partnerships	37
Legal Counsel and Professional Advisors	38
GOVERNMENT CONTRACTING FRAMEWORK	39
U.S. HHS — BARDA and Project BioShield	39
U.S. Department of Defense Procurement	40

DHS/FEMA First Responder Procurement	41
Contract Structures and Pricing Dynamics	42
Procurement Milestone Alignment	43
Sole Source Justification	43
Allied Nation Procurement Pathways	44
FINANCIAL PROJECTIONS	45
Important Disclaimer	45
Valuation Summary — Base and Upside Cases	45
Key Financial Assumptions	46
10-Year Revenue Projection Model	47
SAM/SOM Framework and Steady-State ARR	48
IP Valuation	49
USE OF PROCEEDS	50
Use of Proceeds Table — Maximum Offering	50
Management Discretion and Reallocation Policy	51
Non-Dilutive Funding Parallel Track	51
Development Budget Context	52
INVESTOR SUITABILITY STANDARDS	53
Accredited Investor Definition	53
Additional Suitability Requirements	54
Investor Representations	55
RISK FACTORS	56
Risks Related to Clinical Development	57
Risks Related to Regulatory Approval	59
Risks Related to Government Contracting	61
Risks Related to Intellectual Property	63
Risks Related to the Company and Management	64
Risks Related to the Offering and Securities	66
General, Macroeconomic and Geopolitical Risks	68
TERMS OF THE OFFERING	70
The Securities	70
Offering Amount and Period	70
Subscription Procedure	71
Acceptance and Closing	72
Escrow Arrangements	72
Use of Proceeds Oversight	72
Amendments and Withdrawal	73
DESCRIPTION OF SERIES A PREFERRED STOCK	74
Authorized Capital	74
Liquidation Preference	74
Conversion Rights	75
Voting Rights	75
Anti-Dilution Provisions	76
Dividend Rights	76

Restrictions on Transfer	77
Book-Entry Ownership	77
SUMMARY OF STOCKHOLDERS AGREEMENT	78
Board Composition and Governance	78
Observer Rights	79
Information and Reporting Rights	79
Reserved Matters	80
Pre-Emptive and Anti-Dilution Rights	81
Drag-Along and Tag-Along Provisions	81
CERTAIN FEDERAL INCOME TAX CONSIDERATIONS	82
CONFLICTS OF INTEREST	86
REGULATORY AND OTHER MATTERS	87
HOW TO PARTICIPATE — SUBSCRIPTION INSTRUCTIONS	89
ADDITIONAL INFORMATION	90

EXHIBITS

- Exhibit A — Form of Stockholders Agreement
- Exhibit B — Form of Subscription Agreement and Accredited Investor Questionnaire

SUBSCRIPTION AGREEMENT — KEY TERMS AND STRUCTURE

The Subscription Agreement is a legally binding contract between each investor and Trocar Pharma, Inc. By executing the Subscription Agreement, the investor irrevocably commits to purchase the specified number of Units at \$100,000 per Unit, subject only to the Company's acceptance of the subscription. The Subscription Agreement contains the following principal sections:

Section 1 — Purchase and Sale. The investor agrees to purchase, and the Company agrees to sell (subject to acceptance), the number of Units specified in the signature page at \$100,000 per Unit. Payment is due by wire transfer upon execution and acceptance of the Agreement.

Section 2 — Investor Representations and Warranties. The investor makes comprehensive representations regarding: (a) its status as an accredited investor under Rule 501(a) of Regulation D; (b) its investment intent (purchasing for own account, not for distribution); (c) its access to information and opportunity to ask questions; (d) its financial sophistication and ability to evaluate the investment; (e) its ability to bear the economic risk of a complete loss; (f) its understanding of the illiquid and restricted nature of the Units; (g) absence of bad actor disqualifying events under Rule 506(d); and (h) compliance with applicable law.

Section 3 — Company Representations. The Company represents as to its corporate organization and authority, the valid authorization and issuance of the Units, the accuracy of information in the Memorandum in all material respects, the absence of undisclosed material litigation, and the Company's material compliance with applicable law.

Section 4 — Conditions to Closing. The Subscription Agreement specifies the conditions that must be satisfied before the Company is obligated to accept the subscription, including receipt of

complete and accurate subscription documentation, accredited investor verification, anti-money laundering compliance, and receipt of funds.

Section 5 — Restrictive Legend. The investor acknowledges that the Units will bear a restrictive legend substantially in the form: 'THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES LAWS OF ANY STATE, AND MAY NOT BE SOLD, OFFERED FOR SALE, ASSIGNED, TRANSFERRED OR OTHERWISE DISPOSED OF UNLESS REGISTERED PURSUANT TO THE PROVISIONS OF SUCH ACT AND LAWS OR AN EXEMPTION FROM SUCH REGISTRATION IS AVAILABLE.'

Section 6 — Indemnification. The investor agrees to indemnify and hold harmless the Company, its officers, directors, agents, and affiliates from and against any damages arising from a breach of any representation or warranty made by the investor in the Subscription Agreement.

The Accredited Investor Questionnaire, attached to the Subscription Agreement, requires the investor to specify the basis for their accredited investor qualification (net worth, income, professional certification, or institutional status), provide supporting documentation as requested, and execute a certification of the accuracy of all information provided. Complete subscription documents will be provided to prospective investors upon request.

- Exhibit C — Georgetown University Exclusive License Agreement Summary
- Exhibit D — DoD/AFRRI Preclinical Study Summaries

DOD/AFRRI PRECLINICAL STUDY SUMMARIES — RADSHIELD™ (YK-4-250)

Study Program Overview

The following summaries describe the key preclinical studies conducted by and in collaboration with the U.S. Department of Defense Armed Forces Radiobiology Research Institute (AFRRI) regarding RadShield™ (YK-4-250). These studies represent \$4.5 million or more in total DoD-sponsored research investment and constitute the primary scientific validation of RadShield's efficacy and mechanism of action. Full study reports are available for review during due diligence under appropriate confidentiality and non-disclosure protections.

Study 1: GI-ARS Survival Study — Primary Efficacy (LD50, 14.3 Gy, Mice)

Study Design: Male and female C57BL/6 mice were exposed to a whole-body radiation dose of 14.3 Gray (Gy) — the LD50 dose for this mouse strain — via cesium-137 irradiator. RadShield (YK-4-250) was administered orally within 24 hours of radiation exposure at the pre-determined therapeutic dose. Control groups received vehicle only. Survival was monitored for 30 days post-exposure. All studies were conducted under AFRRI IACUC-approved protocols.

Primary Results: RadShield-treated animals achieved a 30-day survival rate of 88%, compared to 58% survival in the vehicle control group. This represents a statistically significant improvement of more than 30 percentage points at the median lethal dose ($p < 0.01$, log-rank test). The survival benefit was consistent across male and female animals and across multiple independent study replications.

Secondary Endpoints: Treated animals also showed significantly improved body weight maintenance, earlier return to baseline activity levels, and reduced clinical signs of radiation

sickness (including reduced diarrhea, hemorrhage, and lethargy scores) compared to controls. The time to death in animals that did not survive was also significantly delayed in the RadShield group, suggesting attenuation of the severity of GI-ARS even in non-surviving animals.

Study 2: Intestinal Histopathology and Crypt Survival Study

Study Design: C57BL/6 mice were irradiated at 12–14 Gy and administered RadShield or vehicle. At days 3, 5, and 7 post-irradiation, intestinal tissue was collected for histopathological analysis, including hematoxylin and eosin (H&E) staining for villus height and crypt number, and immunofluorescence staining for LGR5+ intestinal stem cell markers.

Results: RadShield-treated animals showed significantly greater intestinal crypt survival at all time points compared to vehicle controls ($p < 0.05$). Villus height was significantly better preserved in treated animals. LGR5+ stem cell populations in the intestinal crypts were significantly higher in RadShield-treated animals, indicating that the compound protects the regenerative compartment of the gut epithelium from radiation-induced depletion.

Clinical Significance: Intestinal crypt survival is a well-established histopathological surrogate endpoint for GI-ARS treatment efficacy. The correlation between crypt survival data and overall survival is consistent with the primary survival study results and with the proposed mechanism of action through LGR5+ stem cell protection.

Study 3: DNA Repair Endpoints (Gamma-H2AX and Comet Assay)

Study Design: Intestinal epithelial cells were isolated from irradiated mice at 4 and 24 hours post-irradiation. DNA damage was assessed by gamma-H2AX immunofluorescence (a marker of double-strand DNA breaks) and alkaline comet assay (which detects both single-strand and double-strand breaks). RadShield and vehicle treatment groups were compared.

Results: At both time points, RadShield-treated animals showed statistically significant reductions in gamma-H2AX foci counts compared to vehicle controls, indicating fewer double-strand DNA breaks or faster repair of such breaks. Comet assay results showed significantly reduced olive tail moment (a measure of DNA strand break extent) in RadShield-treated animals, consistent with reversal or repair of both single-strand and double-strand DNA breaks.

Clinical Significance: DNA repair is a critical component of cellular recovery from radiation injury. Persistent double-strand DNA breaks lead to apoptosis and are a primary driver of GI epithelial cell death in ARS. RadShield's demonstrated ability to reduce DNA break burden may contribute to its survival benefit through preservation of epithelial cell viability.

Study 4: Bacteremia and Mucosal Barrier Integrity Study

Study Design: Blood was collected from irradiated mice at days 5 and 7 post-irradiation and cultured aerobically and anaerobically to quantify bacteremia (bacterial colony counts in blood). Intestinal mucosal integrity was assessed by serum levels of fluorescein isothiocyanate (FITC)-dextran following oral gavage (a standard assay for gut permeability), and by tight junction protein expression (ZO-1, claudin-1, occludin) in intestinal tissue.

Results: RadShield-treated animals showed significantly lower blood bacterial colony counts at both time points ($p < 0.05$), indicating reduced bacterial translocation from the gut lumen into the bloodstream. Serum FITC-dextran levels were significantly lower in treated animals, indicating better preservation of gut barrier integrity. Tight junction protein expression was significantly higher in treated animals, consistent with structural preservation of the mucosal barrier.

Clinical Significance: Bacterial sepsis secondary to mucosal barrier failure is a primary cause of death in GI-ARS patients who survive the initial radiation injury. RadShield's demonstrated ability to preserve gut barrier integrity and reduce bacteremia directly addresses this lethal downstream complication of GI-ARS.

Study 5: Radiation-Induced Lung Injury (Pulmonary Fibrosis) Study

Study Design: Mice were exposed to thoracic radiation at doses associated with delayed pulmonary fibrosis (12–15 Gy thoracic irradiation). RadShield was administered at defined intervals post-irradiation. Pulmonary outcomes were assessed at 4–6 months post-irradiation by lung histopathology (Masson's trichrome for fibrosis), pulmonary function testing (forced vital capacity, lung compliance), and inflammatory cytokine profiling.

Results: RadShield-treated animals showed significantly reduced pulmonary fibrosis scores on histopathological assessment, better preserved pulmonary function parameters, and significantly lower levels of pro-fibrotic cytokines (TGF-beta, IL-6) compared to vehicle controls.

Clinical Significance: Radiation-induced lung injury is a delayed but potentially lethal complication of high-dose radiation exposure. This study demonstrates RadShield's broader applicability to hematopoietic ARS complications and supports its pipeline application in radiation-induced pulmonary fibrosis. These findings also support the compound's potential in medical oncology applications where radiation therapy-induced lung injury is a clinically significant side effect.

DISCLAIMER: The study summaries above represent the Company's non-confidential characterization of research conducted in collaboration with DoD/AFRRI. Detailed study protocols, raw data, statistical analyses, and full study reports remain subject to confidentiality protections. Investors conducting due diligence will be provided access to full study documentation under appropriate non-disclosure agreements.

- Exhibit E — Detailed Use of Proceeds and Development Budget

DETAILED USE OF PROCEEDS AND DEVELOPMENT BUDGET

Three-Year Development Budget Overview

The following provides a detailed breakdown of the planned deployment of Series A proceeds across the primary development workstreams. This budget reflects management's best estimates as of the date of this Memorandum based on CRO proposals, CMO quotations, regulatory consulting estimates, and published industry benchmarks for comparable development programs. Actual costs may vary materially from these estimates.

Category 1: GLP Toxicology Studies and IND Submission (\$6,000,000 — 15%)

GLP Repeat-Dose Toxicology — Rat (28-day and 90-day): \$1,200,000. Includes study design, dosing, clinical observations, clinical pathology (hematology, clinical chemistry, urinalysis), gross necropsy, histopathology, and toxicokinetics in male and female Sprague-Dawley rats at three dose levels plus vehicle control. GLP-certified CRO costs including QA audit and final report.

GLP Repeat-Dose Toxicology — Mini-Pig (28-day): \$1,500,000. Second species GLP toxicology in Gottingen minipigs, required for IND submission for a compound with oral dosing and systemic exposure. Includes all endpoints as per rat study plus cardiovascular telemetry assessments.

Pivotal GI-ARS GLP Efficacy Study: \$800,000. GLP-compliant pivotal GI-ARS efficacy study in C57BL/6 mice using AFRRRI-validated model, with regulatory-grade documentation for IND package and future BLA/NDA submission.

cGMP API Manufacture (3 kg batch): \$1,200,000. Scale-up synthesis of YK-4-250 to cGMP grade through qualified CMO; analytical method transfer and validation; cGMP batch record preparation; quality release testing.

IND Filing and Regulatory Affairs: \$300,000. IND application preparation, compilation, and submission; FDA user fees; Pre-Phase 1 FDA meeting preparation and attendance; regulatory writing and project management.

Category 2: Phase 1 Clinical Safety Trial (\$8,000,000 — 20%)

CRO Selection and Contract: \$500,000. Competitive CRO selection process, contract negotiation, and project kickoff for Phase 1 trial management.

Phase 1 Clinical Trial Execution: \$5,000,000. Single ascending dose (SAD) and multiple ascending dose (MAD) Phase 1 study in healthy volunteers; 4 to 6 dose cohorts; 48 to 72 total subjects; safety, tolerability, and pharmacokinetic endpoints; clinical site costs; subject compensation and insurance; data management.

Bioanalytical Methods and PK Analysis: \$600,000. Bioanalytical assay validation for human plasma and urine matrices; LC-MS/MS quantification; non-compartmental and compartmental PK analysis; PK/PD modeling for dose selection.

Clinical Site Infrastructure: \$800,000. Clinical site qualification and startup; IRB submissions; investigator site grants; site monitoring visits; regulatory submissions to participating site IRBs.

Phase 1 Data Analysis and FDA EoP1 Meeting: \$1,100,000. Statistical analysis and final clinical study report; FDA End-of-Phase 1 meeting preparation, briefing document, and attendance; regulatory strategy update based on Phase 1 data.

Category 3: Phase 2 Efficacy Trial and Animal Rule Submission (\$11,000,000 — 27.5%)

Phase 2 Animal Efficacy Study Design and Execution: \$4,500,000. Pivotal animal efficacy studies under the Animal Rule in non-human primates (NHP) or other accepted species; IACUC approvals; AFRRRI collaboration for validated irradiation model; GLP-compliant study execution; mechanistic endpoint assessments.

Phase 2 Clinical Pharmacokinetic Bridging Studies: \$2,000,000. Clinical PK/PD studies in special populations (elderly, renal impairment); animal-to-human PK bridging analysis; dose selection modeling for Animal Rule application.

BLA/NDA Compilation and Submission: \$1,500,000. Integrated summary of efficacy, integrated summary of safety, CMC module preparation, non-clinical overview, clinical pharmacology overview; regulatory writing team; FDA submission fees.

FDA Advisory Committee Preparation: \$1,000,000. Expert panel recruitment and preparation; advisory committee presentation development; pre-meeting FDA interactions; scientific consultation from radiation medicine experts.

Phase 2 Project Management and Regulatory Affairs: \$2,000,000. Phase 2 CRO oversight; regulatory project management; FDA interactions during review; manufacturing process validation; lot release testing.

Corporate Operations, Salaries, Legal and IP (\$7,000,000 — 17.5%)

Key Personnel Compensation (Annual): CEO \$300,000; CSO \$175,000; CFO \$125,000; CMO Consultant \$175,000; Clinical Trials Manager \$125,000; COO \$175,000; Head of Chemistry \$150,000; Head of Biology \$150,000; Administrative Support \$65,000; Marketing/Branding \$60,000; Board (3 members at \$50,000 each) \$150,000. Annual total: \$1,650,000. Three-year total: \$4,950,000.

Legal (Corporate, Regulatory, IP): Covington and Burling regulatory counsel \$400,000/year; Akin Gump corporate counsel \$200,000/year; Harness Dickey IP prosecution and maintenance \$150,000/year; Shami Messinger supplemental \$75,000/year. Three-year legal total: approximately \$2,475,000.

Corporate Maintenance and Insurance: State filings, registered agent, audit (if required), D&O insurance, general liability. Approximately \$150,000 per year over three years.

- Exhibit F — Sole Source Justification Memorandum

SOLE SOURCE JUSTIFICATION MEMORANDUM

To: Department of Defense / BARDA / Relevant Contracting Officers

Re: Sole Source Justification — RadShield™ (YK-4-250) GI-ARS Medical Countermeasure

This memorandum provides the factual and legal basis for a determination that RadShield™ (YK-4-250), developed by Trocar Pharma, Inc., is available from only one responsible source and that the use of any other source would result in substantial duplication of cost or unacceptable delays in fulfilling essential national security requirements for a Gastrointestinal Acute Radiation Syndrome (GI-ARS) medical countermeasure.

I. Legal Authority

Federal Acquisition Regulation (FAR) 6.302-1 authorizes contracting without full and open competition when the supplies or services required by the agency are available from only one responsible source, or from a limited number of responsible sources, and no other type of supplies or services will satisfy agency requirements. Additionally, 10 U.S.C. § 2304(c)(1) and 41 U.S.C. § 3304(a)(1) authorize sole source awards for unique and innovative items when competition would result in substantial duplication of cost, unacceptable delays, or the loss of unique expertise or data.

II. Description of the Required Supplies or Services

The Department of Defense, HHS/BARDA, and DHS/FEMA require an orally administered, post-exposure medical countermeasure specifically targeting Gastrointestinal Acute Radiation Syndrome (GI-ARS) at radiation doses of 6 to 30 Gray. The countermeasure must: (1) be orally administered to enable mass-casualty deployment without medical personnel; (2) have demonstrated efficacy against GI-ARS at the LD50 dose level in validated animal models; (3) be

storable at ambient temperature without cold chain requirements; (4) be suitable for pre-positioning in military field supplies, national stockpile inventories, and first responder emergency kits; and (5) be in active development under an IND or Pre-IND regulatory pathway with FDA.

This requirement is driven by the documented absence of any FDA-approved GI-ARS countermeasure and the strategic vulnerability this absence creates in national preparedness for nuclear and radiological mass-casualty events.

III. Basis for Sole Source Determination

1. Unique Scientific Validation: RadShield™ (YK-4-250) is the only known GI-ARS countermeasure candidate that has: (a) demonstrated 88% survival versus 58% control at the LD50 dose (14.3 Gy in mice) in U.S. Department of Defense / AFRRRI-sponsored studies; (b) completed a Pre-IND meeting with the U.S. Food and Drug Administration with approval of the proposed development program; (c) demonstrated multiple mechanistic endpoints consistent with GI-ARS mitigation, including intestinal crypt survival, DNA repair, mucosal barrier restoration, and bacteremia reduction, all in DoD-sponsored studies; and (d) received an exclusive worldwide license from a major research university (Georgetown University) for the underlying compound.

2. Exclusive Intellectual Property: Trocar Pharma, Inc. holds the worldwide exclusive rights to develop and commercialize YK-4-250 under an Exclusive License Agreement with Georgetown University. No other entity has the legal right to develop, manufacture, or commercialize YK-4-250 for any therapeutic indication without obtaining a sublicense from Trocar Pharma. Any competing development program using YK-4-250 or substantially similar compounds would require independent discovery of a different chemical entity and years of additional preclinical development.

3. Oral Delivery — Unique Operational Profile: RadShield™ is an orally administered compound. All three currently FDA-approved radiation MCMs (Neupogen, Leukine, Nplate) require injection and address only the hematopoietic syndrome, not GI-ARS. No other known GI-ARS countermeasure in development combines the oral delivery profile with the level of DoD-validated preclinical data that Trocar Pharma has developed.

4. Existing Government Relationship: Trocar Pharma has an established collaborative research relationship with AFRRRI representing more than \$4.5 million in funded studies. This relationship has resulted in transfer of scientific knowledge, validated study methodologies, and institutional expertise that would require years and substantial investment to replicate with a different source.

5. No Alternative Sources: The contracting officer and technical requirements team have conducted a market survey of known GI-ARS countermeasure candidates and have found no alternative source that simultaneously meets all five requirements specified in Section II of this memorandum. Known pipeline competitors are earlier in development, have less validated preclinical data, do not have an oral delivery profile, and do not have an established DoD collaborative relationship.

IV. Price Reasonableness

The pricing of RadShield™ at \$500 per dose (with a treatment protocol of 3 to 12 doses per person, representing a cost of \$1,500 to \$6,000 per treatment course) is consistent with precedent government procurement prices for approved radiation MCMs. BARDA has historically procured Nplate (romiplostim) at per-course values of approximately \$5,000 to \$8,000 for hematopoietic ARS. The proposed RadShield™ pricing is within this established precedent range and is

commensurate with the development investment required and the strategic national security value of the product.

V. Actions to Increase Competition in the Future

The contracting officer notes that while the current procurement requires a sole source determination based on RadShield™'s unique qualifications, the government should encourage other developers to pursue GI-ARS countermeasure programs through BARDA Other Transaction Authority agreements, NIH research grants, and DoD basic research programs. In the medium term (5 to 10 years), it may become possible to issue competitive solicitations for a second-generation or complementary GI-ARS countermeasure. However, for the immediate procurement requirements associated with the national preparedness gap in GI-ARS, Trocar Pharma and RadShield™ represent the only viable near-term source.

DISCLAIMER: This Sole Source Justification Memorandum has been prepared by the Company's management and advisors for internal government affairs strategy purposes. It has not been submitted to or reviewed by any government contracting officer, BARDA program officer, or other government official, and does not constitute a determination by any government agency. Government agencies retain full discretion to conduct competitive procurement processes, and any actual sole source determination would be subject to the government's independent analysis, legal review, and compliance with all applicable acquisition regulations.

- Exhibit G — Government Contracting and Procurement Appendices

GOVERNMENT CONTRACTING AND PROCUREMENT APPENDICES

Appendix A: U.S. Government Contracting Framework

This appendix is prepared for institutional investors, strategic pharmaceutical partners, government-aligned capital providers, and internal investment committees. It converts prior analytical materials into traditional, print-ready reference documents suitable for formal diligence, investment committee review, and external distribution. The materials are intentionally conservative, precedent-based, and aligned with existing U.S. and allied government procurement frameworks.

The commercialization strategy for RadShield™ is built on established government procurement mechanisms used for national security, emergency preparedness, and public health countermeasures. These mechanisms are statutory, budgeted, and repeatedly utilized across prior programs. The revenue model assumes execution within existing frameworks — not the creation of new legislation or speculative emergency funding.

A.1 U.S. Department of Health and Human Services (HHS)

Key Agencies: Administration for Strategic Preparedness and Response (ASPR); Biomedical Advanced Research and Development Authority (BARDA); Centers for Disease Control and Prevention (CDC — Strategic National Stockpile coordination).

Legal Authorities: Project BioShield Act of 2004; Pandemic and All-Hazards Preparedness Act (PAHPA); Public Health Service Act (Section 319F); 21st Century Cures Act (accelerated development provisions).

Procurement Role: HHS agencies are responsible for advanced development funding, pre-event and post-event countermeasure procurement, and Strategic National Stockpile acquisition and replenishment. Contracting typically transitions from cost-reimbursable development agreements to fixed-price procurement contracts following regulatory approval. FY2024 BARDA budget allocations include specific line items for radiation MCM advanced development, reflecting documented programmatic commitment to this category.

A.2 U.S. Department of Defense (DoD)

Relevant Offices: Defense Health Agency (DHA); Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense (JPEO-CBRND); U.S. Army Medical Research and Development Command (USAMRDC); Armed Forces Radiobiology Research Institute (AFRRI).

Contracting Authorities: Federal Acquisition Regulation (FAR) Parts 12 and 15; Other Transaction Authority (10 U.S.C. § 4022); Indefinite Delivery / Indefinite Quantity (IDIQ) contracts under FAR Part 16; Firm Fixed Price (FFP) contracts for post-approval procurement.

Procurement Objectives: Force protection for service members and dependents; forward-deployed readiness for nuclear-capable theater environments; pre-positioned stockpiles for contingency operations; protection of nuclear custodial and nuclear-powered vessel personnel.

A.3 Contract Structures

Other Transaction Authority (OTA): OTA agreements are used heavily during development and validation phases. They allow milestone-based funding, flexible IP treatment, and faster award timelines than FAR-based contracts. BARDA and JPEO-CBRND have used OTAs extensively for radiation MCM development programs.

IDIQ Contracts: IDIQ contracts establish a ceiling value and minimum guaranteed purchase, allowing agencies to issue delivery orders as demand materializes. These contracts support multi-year budgeting and rapid surge procurement in response to threat events or policy directives.

Firm Fixed Price (FFP): FFP contracts dominate post-approval procurement and replenishment cycles, providing long-term margin stability for the Company. Pricing typically includes CPI escalation clauses and urgency premiums for emergency procurement.

Emergency Use Authorization (EUA): An EUA from FDA may provide bridge market access prior to full Animal Rule approval, enabling initial government procurement while the BLA/NDA review is pending. BARDA has utilized EUAs to initiate procurement contracts for radiation MCMs in prior programs.

Appendix B: BARDA and DoD Precedent Case Studies

Case Study 1 — Radiation Countermeasure Program (H-ARS Agents): BARDA's development and procurement program for the three approved H-ARS MCMs (Neupogen, Leukine, Nplate) collectively involved development funding exceeding \$100 million per agent and initial procurement contracts of \$200 million to \$400 million per agent. The combined government investment in H-ARS countermeasures over the period 2010-2022 demonstrates sustained Congressional and executive branch commitment to funding radiation MCM procurement at the nine-figure scale. RadShield as a GI-ARS countermeasure — addressing an entirely different and more immediately lethal radiation syndrome — would represent an additive procurement program rather than a replacement for existing H-ARS agents.

Case Study 2 — Anthrax MCM Program (Raxibacumab): BARDA invested approximately \$400 million in development funding and initial procurement for raxibacumab (ABthrax), an anthrax antitoxin approved in 2012 under the Animal Rule. This case study is directly analogous to RadShield's anticipated development and procurement pathway: Animal Rule approval, government-only market, BARDA development funding followed by fixed-price SNS procurement contracts. The raxibacumab program demonstrates that BARDA can and does invest at the \$400 million scale in Animal Rule-approved countermeasures with government-only markets.

Case Study 3 — Pandemic Therapeutic Program: BARDA's track record in COVID-19 and other pandemic MCM procurement demonstrates the agency's ability to move from development agreement to procurement contract within 12 months following Emergency Use Authorization, with contracts of \$500 million to \$2 billion in initial procurement value. While pandemic MCMs operate in a different regulatory and procurement context than radiation countermeasures, this case demonstrates BARDA's operational capacity to execute large-scale, rapid procurement contracts when national security requirements demand it.

Appendix C: Procurement Timeline — Narrative

Phase 1 (Current — IND Enabling): Trocar Pharma is completing GLP toxicology and IND-enabling studies funded by the Series A Offering. During this period, the Company is initiating formal government engagement with BARDA program officers, JPEO-CBRND personnel, and DHA formulary reviewers to position RadShield as a priority program. BARDA engagement at this stage typically takes the form of pre-solicitation meetings, BARDA Broad Agency Announcement (BAA) application preparation, and alignment of the development program with PHEMCE strategy priorities.

Phase 2 (IND Submission and Phase 1 Clinical): Following successful IND submission, the Company will be eligible to pursue BARDA OTA development agreements and DoD research contracts that could provide non-dilutive co-funding for Phase 1 clinical activities. This phase is the critical inflection point at which the government transitions from scientific interest to formal contractual engagement.

Phase 3 (Phase 2 / Animal Rule Efficacy): With Phase 2 efficacy data and BLA/NDA filing, the Company will initiate formal procurement negotiations for initial government contracts. BARDA and DoD contracting processes for post-approval procurement typically begin 12 to 18 months before the anticipated approval date to ensure contract vehicles are in place immediately upon approval.

Phase 4 (Post-Approval Procurement): Fixed-price contracts for SNS Phase 1 initial procurement (2 million treatment courses; \$7 billion target at mid-pricing) and DoD pre-positioned supply procurement are the primary revenue drivers in the first two to three years post-approval. Allied nation procurement and first responder procurement (via FEMA grants) follow on a 12 to 24 month lag.

Appendix D: Investor Investment Committee Memo Summary

This opportunity represents a late-stage national security pharmaceutical asset positioned for government-backed commercialization with significant strategic value. The key investment thesis elements are: (1) statutory government demand under the Project BioShield Act and existing BARDA/DoD MCM procurement programs; (2) a budgeted procurement pathway backed by Congressional appropriations for radiation MCM preparedness; (3) scalable manufacturing economics achievable through established CMO networks; (4) strategic pharmaceutical exit

optionality through acquisition by major pharmaceutical or defense contractors; and (5) IP licensing upside through sublicensing of the Georgetown Exclusive License to international partners.

Risk Mitigation Framework: The primary risks to the investment thesis — regulatory approval risk, government procurement timeline risk, and manufacturing scale-up risk — are all substantially mitigated by the following factors: DoD/AFRR validation provides the strongest possible scientific endorsement by the end customer; the Pre-IND meeting provides regulatory pathway clarity; the established precedent of three approved Animal Rule agents eliminates pathway uncertainty; the exclusive Georgetown license eliminates competitive IP risk; and the Sole Source position reduces competitive procurement risk.

Return Profile: Base Case Multiple on Invested Capital (MoIC): 5x to 7x; Upside MoIC: 8x to 10x or more; Downside scenario: 0x to 1x if regulatory approval is not achieved. Time horizon to liquidity: 5 to 8 years from close of Series A, targeting FDA approval year 5 and strategic acquisition or IPO year 6 to 8. The government procurement revenue model provides a clear, quantified path to enterprise value that is directly calculable from public data on government force sizes, procurement budgets, and precedent MCM contract values.

- Exhibit H — Financial Projections Model Outputs (One-Page Summary)
- Exhibit I — Trocar Pharma Q1 2025 Progress Report

TROCAR PHARMA Q1 2025 PROGRESS REPORT SUMMARY

The following summarizes the key milestones and activities reported in Trocar Pharma's Q1 2025 Progress Report. The full report is available to investors upon request.

I. NIH 1U01 Grant Progress

The Company submitted a 1U01 cooperative agreement application to the NIH for IND-enabling milestone funding. The application received a Priority Score of 30, which is within the fundable range for this program. The Company is actively responding to reviewer feedback and anticipates a funding determination in the coming review cycle. An NIH 1U01 award would provide non-dilutive federal funding for GLP toxicology studies and IND submission, preserving Series A capital for clinical trial activities.

II. Board Expansion — Military Leadership Initiative

To bridge the gap between clinical validation and federal procurement, Trocar Pharma is actively recruiting a high-ranking retired U.S. Army General or Navy Commander to the Board of Directors. This appointment is intended to provide strategic oversight for navigating the DoD acquisition landscape, the Strategic National Stockpile procurement process, and the JPEO-CBRND acquisition cycle. The Company has identified several candidates and is in active discussions. A senior military leader with force protection and dual-use medical technology experience is expected to significantly accelerate government business development activities.

III. Market Analysis and Pipeline Diversification

During Q1 2025, the Company completed an extensive market assessment to maximize the Total Addressable Market for the YK-4-250 platform. Core defense and medical markets identified include: National Stockpile MCM procurement; military and first-responder radiation protection; clinical radiation injury mitigation; and gastroenterology (IBD — Crohn's and ulcerative colitis).

Planned market expansion identified 10 additional clinical indications for the YK-4-250 platform including: Neuroinflammation (Alzheimer's, PTSD, anxiety, depression); Systemic inflammatory conditions (hypertension, sleep dysregulation, hidradenitis suppurativa); and Pediatric orphan diseases (neonatal hypoxic-ischemic encephalopathy and necrotizing enterocolitis). The Company's patent counsel is evaluating the IP protection strategy for each of these expanded indications.

IV. Non-Dilutive Value Creation Summary

By executing the following milestones under the NIH 1U01 grant framework and parallel research collaboration agreements, Trocar Pharma is building enterprise value through equity preservation and scientific validation: VCU crystal/polymorph studies (completed) — contributes to IP protection and manufacturing stability; TCG GreenChem solubility/stability studies (completed) — contributes to formulation de-risking and IND readiness; ODU pharmacokinetic studies (ongoing) — contributes to dosing and safety profile optimization; AFRRRI GI-ARS model studies (ongoing) — contributes to federal countermeasure validation; internal market analysis — contributes to TAM expansion and pipeline diversification.

V. Investor Pipeline Update (as of Q1 2025)

The Company's advisors engaged 37 institutional investors and received feedback from this initial outreach round. Key strong points identified by investors: validated WACC and perpetual growth rate assumptions; moderate funding requirements relative to market opportunity; focus on high-impact national security area; promising preclinical results (88% survival in mice); large potential stockpiling market; experienced leadership team; strong valuation upside scenarios. Investors raised 13 specific questions requiring follow-up, primarily related to: early losses and negative cash flow during development; regulatory pathway risk; government contracting timeline uncertainty; and manufacturing scalability.

Proposals under active investor review as of Q1 2025 included capital sources in San Francisco, Washington D.C., and Chicago focused on healthcare and defense technology investments. The Company anticipated term sheets from multiple investors by end of Q2 2025, with detailed due diligence following thereafter.

- Exhibit J — Competitive Analysis and Comparables Package

BUSINESS SUMMARY

The following is a summary of this Memorandum. The following summary does not contain all the information that you should consider before investing in the Securities. You should read this entire Memorandum carefully, including all exhibits, prior to making an investment decision. Unless otherwise indicated, the "Company," "Trocar Pharma," "we," "us," "our" and similar terms refer to Trocar Pharma, Inc., a Delaware Corporation.

Corporate Background and Overview

Trocar Pharma, Inc. ("Trocar Pharma" or the "Company") was incorporated in the State of Delaware in February 2020 and was originally formed as Newatti Pharmaceuticals LLC in November 2019. The Company subsequently converted to a Delaware corporation via a formal Plan of Conversion, has qualified as a foreign corporation in the State of Maryland, and maintains its Delaware registered agent at 160 Greentree Drive, Suite 101, Dover, Kent County, Delaware 19904, through National Registered Agents, Inc.

The Company is a clinical-stage pharmaceutical company focused exclusively on the development, regulatory advancement, and commercialization of RadShield™ (YK-4-250), a patented, first-in-class small molecule therapeutic targeting Gastrointestinal Acute Radiation Syndrome (GI-ARS) and related radiation-induced pathologies. The Company's intellectual property is anchored by an Exclusive License Agreement with Georgetown University (Agreement No. 2022-0493, executed June 29, 2022), granting Trocar Pharma worldwide exclusive rights to develop, manufacture, use, and commercialize the YK-4-250 compound for all therapeutic indications.

The Company has assembled a leadership team with deep expertise in pharmaceutical drug development, oncology, FDA regulatory affairs, institutional finance, and intellectual property law. The team includes physician-scientists with affiliations at Georgetown University, the Inova Schar Cancer Institute, and the University of Virginia; finance professionals with experience at Morgan Stanley and J.P. Morgan; legal counsel from Covington & Burling LLP, Akin Gump Strauss Hauer & Feld LLP, and Harness Dickey & Pierce PLC; and clinical development leadership with Johns Hopkins and Roswell Park Cancer Institute backgrounds. The Company has established active research collaborations with the U.S. Department of Defense Armed Forces Radiobiology Research Institute (AFRRI), NIH/NIAID, the Uniformed Services University, George Mason University, Old Dominion University, and Virginia Commonwealth University, representing a network of institutional validation that is foundational to the Company's scientific credibility and government procurement strategy.

The Critical Unmet Medical Need

Acute Radiation Syndrome (ARS) is a life-threatening condition caused by exposure to high doses of ionizing radiation over a short period. ARS presents in three overlapping syndromes based on dose level: Hematopoietic ARS (H-ARS), occurring primarily at doses of 2–10 Gray (Gy); Gastrointestinal ARS (GI-ARS), occurring primarily at doses of 6–30 Gy; and Cardiovascular/Central Nervous System ARS (CV/CNS-ARS), occurring at doses exceeding approximately 20 Gy. The gastrointestinal syndrome is particularly lethal: at exposure levels above 6 Gy, the intestinal epithelial lining undergoes rapid destruction — a process driven by apoptosis of crypt stem cells, collapse of the mucosal barrier, bacterial translocation, hemorrhage, and systemic sepsis — leading to death within days to two weeks without effective intervention.

The sources of radiation exposure capable of causing ARS are numerous and growing: nuclear weapons deployment, radiological dispersal devices ("dirty bombs"), nuclear reactor accidents, accidental exposures in medical or industrial settings, and the increasingly significant risks associated with extended human spaceflight beyond low-Earth orbit. The geopolitical environment as of the date of this Memorandum represents the highest level of nuclear threat since the Cold War, with multiple nuclear-armed states engaged in or threatening armed conflict, growing nuclear arsenals in Asia and the Middle East, and vulnerability of civilian nuclear infrastructure demonstrated by the ongoing conflict in Ukraine.

Despite decades of research and the obvious strategic imperative, there are currently zero FDA-approved therapeutics specifically targeting the early lethal gastrointestinal effects of high-dose radiation exposure. The three FDA-approved radiation MCMs — Neupogen (G-CSF), Leukine (GM-CSF), and Nplate (romiplostim) — address only the hematopoietic syndrome, which affects blood cell production. None of these agents addresses GI-ARS. The absence of a GI-ARS countermeasure represents one of the most critical gaps in global medical preparedness and constitutes a direct, actionable national security vulnerability for the United States, its military forces, and its allied nations.

The clinical significance of this gap cannot be overstated. At exposures above 6 Gy — doses achievable at the periphery of a nuclear detonation or through significant fallout exposure — GI-ARS becomes the dominant cause of early death, killing within 2 to 14 days in the absence of effective treatment. A nuclear detonation in a major U.S. urban center would expose an estimated 100,000 to 500,000 individuals to potentially lethal radiation doses under FEMA's National Planning Scenario 1 modeling, with a substantial proportion experiencing GI-ARS. For these individuals, no approved treatment currently exists.

The RadShield™ Solution

RadShield™ (YK-4-250) is a patented small molecule compound developed by researchers at Georgetown University and licensed exclusively to Trocar Pharma, Inc. RadShield™ addresses GI-ARS through a novel mechanism of action centered on upregulation of Angiotensin-Converting Enzyme 2 (ACE2) in the renin-angiotensin system (RAS), a critically important pathway in gastrointestinal homeostasis, kidney function, cardiovascular regulation, and pulmonary physiology.

The mechanism of action operates through multiple complementary pathways: reversal of radiation-induced apoptosis in GI epithelial cells, protection and regeneration of intestinal LGR5+ crypt stem cells, repair of both double-strand and single-strand DNA breaks caused by ionizing radiation, restoration of intestinal mucosal barrier integrity (reducing life-threatening bacteremia and sepsis), inhibition of reactive oxygen species (ROS) that drive oxidative damage, downregulation of pro-inflammatory cytokine cascades, and vasodilatory, anti-fibrotic, and antithrombotic effects mediated through the RAS pathway. This multi-pathway activity distinguishes RadShield™ from more narrowly targeted compounds and explains the breadth of therapeutic applications observed in preclinical studies.

The Company has completed extensive preclinical validation of RadShield™ in collaboration with DoD/AFRRI, representing \$4.5 million or more in funded research. The headline result of these studies is striking: RadShield™ achieved 88% survival at the LD50 dose level (14.3 Gy in mice) compared to 58% survival in the control group — a greater than 30 percentage point improvement

at the median lethal dose. Additional validated endpoints include significant improvement in intestinal crypt survival with preserved LGR5+ stem cell populations, confirmed reversal of double-strand and single-strand DNA breaks, statistically significant reduction in bacteremia, restoration of mucosal barrier function, and mitigation of radiation-induced lung injury in pulmonary fibrosis models.

A critical differentiating feature of RadShield™ is its oral route of administration. All three currently approved radiation MCMs require subcutaneous or intravenous injection, necessitating medical personnel and infrastructure that would be unavailable in mass-casualty scenarios involving tens or hundreds of thousands of simultaneously exposed individuals. An oral countermeasure that can be stockpiled in ambient conditions and administered by non-medical personnel — first responders, soldiers, emergency managers — represents a transformative operational advantage for government procurement and mass-casualty deployment. This oral delivery profile is directly aligned with the requirements of the U.S. Strategic National Stockpile and DoD pre-positioned stockpile programs.

The Company has completed its Pre-IND meeting with the FDA, received feedback from FDA on the proposed development program, completed Year 1 synthesis and analytical work including manufacture of 400 grams of YK-4-250 under non-GMP conditions, completed bioanalytical assay development and validation, completed single-dose pharmacokinetic studies in C57BL/6 mice, and completed a comprehensive preclinical safety assessment covering neurobehavioral, respiratory, cardiovascular (hERG), genotoxicity (Ames and micronucleus), metabolic stability, CYP450 inhibition and induction, and protein binding studies. The next steps — GLP toxicology studies, IND submission, and Phase 1/2 clinical trials — are precisely the milestones that this \$40 million Series A Offering is designed to fund.

Why RadShield™ Now — Strategic Imperative

The convergence of geopolitical, scientific, regulatory, and market factors creates a uniquely compelling window for RadShield™'s development and commercialization. Several forces are simultaneously and powerfully aligned:

- Nuclear threat levels are at their highest since the Cold War, driving unprecedented government investment in medical countermeasure preparedness. The U.S. Nuclear Posture Review (2022) explicitly identifies the elevated nuclear threat environment. Russia's strategic nuclear threats in the context of the Ukraine conflict, North Korea's expanding missile and nuclear programs, and tensions in the Indo-Pacific have elevated government willingness to fund radiation MCM procurement.
- No competing GI-ARS countermeasure is further advanced in development. RadShield™ is the only known GI-ARS countermeasure with: (i) a Pre-IND meeting completed with FDA; (ii) greater than \$4.5 million in DoD-sponsored preclinical validation; (iii) an exclusive license from a major research university; and (iv) an oral delivery mechanism. This creates a window for first-mover advantage and Sole Source procurement that diminishes with time as potential competitors advance.
- The Project BioShield Act and BARDA procurement mechanisms are fully operational and have demonstrated willingness to invest in novel radiation MCMs. Historical contract awards for approved radiation MCMs have ranged from \$200 million to \$400 million, with development funding of \$100 million or more. RadShield™ is positioned to enter these programs following IND submission and Phase 1 safety data.

- Regulatory precedent under the Animal Rule is well established by approved agents (Neupogen, Leukine, Nplate), providing a proven pathway that reduces regulatory uncertainty relative to novel approval pathways.
- The \$40 million Series A Offering is precisely sized to fund the critical de-risking milestones — GLP toxicology, IND submission, and Phase 1/2 clinical trials — that represent the largest step-change in regulatory and commercial risk reduction. Post-Phase 2 data with FDA Animal Rule approval would position the Company for either a substantial Series B raise for commercial scale-up or an acquisition by a major pharmaceutical or defense contractor.
- Investor feedback from 37 institutional investors reviewed by the Company's advisors validated the core investment thesis, with strong points including the focus on a high-impact national security area, promising preclinical results, large stockpiling market, experienced leadership, and strong valuation upside scenarios.

RADSHIELD™ — THE PRODUCT

Mechanism of Action (YK-4-250)

RadShield™ (YK-4-250) is a patented small molecule therapeutic that acts on the renin-angiotensin system (RAS), a critical regulatory pathway that governs fluid balance, vascular tone, and cellular homeostasis across multiple organ systems including the gastrointestinal tract, kidneys, heart, and lungs. The compound's primary mechanism is upregulation of Angiotensin-Converting Enzyme 2 (ACE2), which shifts the balance of the RAS from its pathological arm (Angiotensin II / AT1 receptor signaling, which promotes vasoconstriction, inflammation, fibrosis, and apoptosis) to its protective arm (Angiotensin 1-7 / Mas receptor signaling, which promotes vasodilation, anti-inflammation, anti-fibrosis, and cell survival). This mechanistic shift produces a cascade of cellular protective and restorative effects that are directly relevant to radiation-induced pathology.

In the context of GI-ARS, ionizing radiation causes direct DNA damage and oxidative stress in rapidly dividing intestinal epithelial cells and their underlying LGR5+ crypt stem cell populations. The resulting apoptosis and stem cell depletion leads to villi collapse, mucosal barrier breakdown, bacterial translocation into the bloodstream (bacteremia), systemic infection, electrolyte imbalance, and hemorrhage — the clinical syndrome that kills GI-ARS patients within days to weeks. RadShield™ addresses this syndrome through the following validated mechanisms:

- **Reversal of Apoptosis:** YK-4-250 arrests programmed cell death in GI epithelial cells by modulating pro-apoptotic signaling pathways downstream of AT1 receptor activation, preserving the cellular integrity of the intestinal lining during the critical post-exposure window.
- **GI Stem Cell Protection:** The compound significantly improves intestinal crypt number and the survival of LGR5+ intestinal stem cells — the regenerative units of the gut epithelium — enabling restoration of the mucosal architecture following radiation injury. This stem cell protective effect is one of the most clinically significant findings in the DoD/AFRRI preclinical program.
- **DNA Repair:** DoD/AFRRI studies confirmed reversal of both double-strand and single-strand DNA breaks in intestinal cells following radiation exposure and RadShield™ treatment. Prevention of permanent DNA damage is essential for reducing long-term oncogenic risk and enabling complete tissue recovery.
- **Gut Mucosa Restoration:** RadShield™ restores the integrity of the intestinal mucosal barrier, increasing GI barrier function and decreasing bacteremia — the bacterial sepsis that is a primary cause of death in GI-ARS patients who survive the initial radiation injury.
- **ROS Inhibition:** The compound suppresses reactive oxygen species (ROS) that drive oxidative damage following radiation exposure, via its vasodilatory and anti-inflammatory effects through the ACE2/Ang 1-7/Mas axis.
- **Cytokine Storm Suppression:** RadShield™ downregulates the pro-inflammatory cytokine cascades (including TNF- α , IL-1 β , and IL-6) that amplify radiation injury and contribute to multi-organ failure in severe ARS.
- **Systemic Protective Effects:** The RAS pathway's broad relevance to cardiovascular, renal, and pulmonary physiology means that RadShield™'s ACE2 upregulation also provides

protective effects in radiation-induced lung injury (pulmonary fibrosis), supporting the compound's applicability to CV/CNS-ARS and the additional pipeline indications described below.

Preclinical Data and DoD/AFRRI Studies

The Company's preclinical program represents one of the most rigorously validated early-stage radiation MCM datasets in the current development landscape, having been conducted under the sponsorship of the U.S. Department of Defense through its premier radiation research institution, the Armed Forces Radiobiology Research Institute (AFRRI) in Bethesda, Maryland. AFRRI is the only DoD laboratory specifically dedicated to research in radiation biology and medical countermeasures, and its endorsement of a compound's preclinical profile carries significant weight in the government procurement and regulatory review process.

The total DoD/AFRRI investment in RadShield™ preclinical studies represents \$4.5 million or more across multiple study programs covering safety pharmacology, GI-ARS mitigation efficacy, tissue recovery mechanisms, and radiation-induced lung injury. This level of government investment in a single investigational compound's preclinical program reflects the exceptional scientific and strategic interest that AFRRI has demonstrated in RadShield™. The headline survival results — 88% survival in RadShield™-treated animals versus 58% survival in controls at the LD50 dose (14.3 Gy in mice), representing a greater than 30 percentage point improvement — were achieved when the compound was administered within 24 hours of radiation exposure and were statistically significant across multiple independent study replications.

Beyond survival, the preclinical dataset demonstrates mechanistic endpoints consistent with the proposed mechanism of action. These include: statistically significant improvement in intestinal crypt number and LGR5+ stem cell survival, which are direct histological correlates of GI epithelial regeneration; confirmed reversal of both double-strand and single-strand DNA breaks in intestinal cells, measured by γ-H2AX and comet assay; significant reduction in bacteremia measured by blood culture colony counts, reflecting restoration of the mucosal barrier; improved intestinal morphology including villus height and crypt depth on histological sections; and reduced serum markers of inflammation and oxidative stress. Additional DoD/AFRRI studies have demonstrated efficacy of RadShield™ in mitigating radiation-induced lung injury, a manifestation of Hematopoietic ARS and delayed radiation pathology relevant to both nuclear MCM and oncology applications.

The Company's independent research collaborations have further validated the compound's mechanism and expanded its therapeutic applicability. Studies at George Mason University have confirmed antiproliferative effects in colon cancer cell lines. Research at NIH/NIAID has characterized the compound's potential in inflammatory bowel disease models. Pharmacokinetic studies at Old Dominion University have provided dosing and safety profile data essential for IND preparation. Crystal and polymorph studies at Virginia Commonwealth University have supported IP protection and identified manufacturing-stable solid forms. Formulation and solubility studies at TCG GreenChem have de-risked the IND-readiness of the drug substance and drug product formulation.

Oral Delivery — The Decisive Differentiator

The route of administration of RadShield™ is oral — available as a tablet or suspension — and this single feature is arguably the most important competitive differentiator in the radiation MCM market. All three currently FDA-approved radiation MCMs (Neupogen, Leukine, and Nplate) require subcutaneous or intravenous injection for administration. In a mass-casualty radiation event involving tens of thousands to hundreds of thousands of simultaneously exposed individuals, the requirement for injection-based administration constitutes a catastrophic logistical barrier. There are simply not enough trained medical personnel, syringes, needles, intravenous supplies, or medical facilities to administer injectable MCMs at the scale required.

An oral countermeasure that can be pre-positioned in standard ambient storage conditions — without cold chain requirements — and administered by first responders, military personnel, or even the general public following straightforward instructions changes the entire deployment paradigm. RadShield™'s oral profile allows pre-positioning in: military field kits and forward operating base medical supplies; National Stockpile formulary for rapid distribution through FEMA disaster response logistics; first responder vehicle-based emergency kits; individual soldier survival kits; civilian emergency preparedness supplies; hospital and trauma center radiation emergency protocols; and spacecraft and space station medical supplies.

The operational implications for government procurement are direct and significant. DoD procurement requirements for CBRN Medical Countermeasures explicitly prioritize countermeasures that can be self-administered or administered by non-medical buddy-aid, do not require cold chain logistics in forward environments, are stable at ambient temperatures consistent with military operational environments, and can be included in individual first aid kits or unit-level medical supplies. RadShield™ satisfies all of these requirements. No currently approved GI-ARS countermeasure exists; no oral GI-ARS countermeasure has ever been approved. RadShield™ would be first-in-class on both dimensions.

Development Pipeline — Beyond GI-ARS

While the primary indication and near-term commercialization focus of RadShield™ is GI-ARS mitigation, the mechanism of action supports a robust pipeline of additional therapeutic applications. The ACE2/RAS pathway is a validated target in multiple disease states, and the preclinical data generated by the Company's research collaborations demonstrate meaningful activity across several indications with large commercial markets:

- **Inflammatory Bowel Disease (IBD):** The same intestinal mucosal protective and anti-inflammatory mechanisms that make RadShield™ effective in GI-ARS have demonstrated efficacy in preclinical IBD models. The global IBD market exceeds \$20 billion annually with 6.8 million patients worldwide suffering from Crohn's disease or ulcerative colitis. Research at NIH/NIAID and George Mason University has characterized RadShield™'s activity in IBD models. The Company is pursuing the NIH 1U01 cooperative agreement grant for IND-enabling milestones that would support concurrent development in this indication.
- **Pulmonary Fibrosis and Radiation-Induced Lung Injury:** DoD/AFRRI studies have demonstrated RadShield™'s ability to mitigate radiation-induced lung injury, a condition that can develop weeks to months after thoracic radiation exposure or inhalation of radioactive particles. The global pulmonary fibrosis market addresses approximately 3 million patients worldwide with a \$2.6 billion serviceable obtainable market for U.S. patients. This indication also has direct MCM relevance for nuclear incident survivors who develop delayed pulmonary complications.

- **Colon Cancer:** Antiproliferative effects in colon cancer cell lines have been demonstrated in George Mason University studies, suggesting potential applications in colon cancer treatment or prevention. With more than 150,000 new U.S. cases annually and a global market exceeding \$15 billion, this represents a significant commercial opportunity if the preclinical signals translate to clinical efficacy.
- **Medical Radiation Protection for Oncology Patients:** Patients undergoing radiation therapy for cancer treatment experience significant normal tissue damage as a side effect. A radioprotective or mitigating agent that could protect healthy tissue during cancer radiotherapy while preserving tumor response could transform the therapeutic window of radiation oncology. The global radiation therapy market exceeds \$8 billion annually.
- **Space Exploration Radiation Mitigation:** Astronauts aboard the International Space Station receive radiation doses of 50 to 2,000 millisieverts per six-month mission — above the annual exposure limit for radiation workers on Earth. A Mars round-trip mission would expose crew members to radiation equivalent to a CT scan every five to six days over the entire journey. As NASA, SpaceX, Blue Origin, and other space operators extend human presence beyond low-Earth orbit, pharmacological radiation mitigation will become a mission-critical capability. RadShield™'s oral, ambient-stable profile makes it uniquely suited for deep space medical supply.
- **Neuroinflammation and Additional Indications:** Preclinical signal data and the broader RAS pathway literature support potential applications in neuroinflammation, including Alzheimer's disease, PTSD, and related conditions, as well as hypertension, sleep dysregulation, neonatal conditions, and antiviral applications. The Company's Q1 2025 Progress Report identifies ten additional clinical indications under strategic evaluation.

REGULATORY PATHWAY

FDA Animal Rule Approval Framework

RadShield™ is being developed for FDA approval under the Animal Rule (21 CFR Part 314, Subpart I, for drugs; 21 CFR Part 601, Subpart H, for biologics), which provides a regulatory pathway for drugs and biological products intended to reduce or prevent the serious or life-threatening conditions caused by exposure to lethal or permanently disabling toxic biological, chemical, nuclear, or radiological substances when the development of adequate and well-controlled human efficacy studies is not feasible or ethical. The Animal Rule is specifically designed for countermeasures where it is not possible or ethical to conduct human challenge studies — precisely the situation for a radiation therapeutic that would require exposing human subjects to lethal radiation doses.

For approval under the Animal Rule, the FDA requires that: (i) there is a reasonably well-understood pathophysiological mechanism of the toxicity of the substance and its prevention or substantial reduction by the product; (ii) the effect is demonstrated in more than one animal species expected to react with a response predictive for humans unless the effect is demonstrated in a single animal species that represents a sufficiently well-characterized animal model for predicting the response in humans; (iii) the animal study endpoint is clearly related to the desired benefit in humans, generally the enhancement of survival or prevention of major morbidity; and (iv) the data or information on the pharmacokinetics and pharmacodynamics of the product or other relevant data or information in animals and humans is sufficiently well-understood to allow selection of an effective dose in humans, and it is therefore reasonable to expect the effectiveness of the product in animals to be a reliable indicator of its effectiveness in humans.

RadShield™'s development program is specifically designed to satisfy each of these requirements. The pathophysiology of radiation-induced GI injury is well-characterized in the medical literature, with established mechanisms of apoptosis, stem cell depletion, mucosal barrier failure, and bacteremia. The compound's mechanism of action — ACE2 upregulation with downstream effects on apoptosis, DNA repair, and mucosal integrity — is directly mechanistically linked to these pathophysiological processes. The animal models used in DoD/AFRRI studies (C57BL/6 mice) are standard, well-characterized radiation biology models with established pharmacokinetic extrapolation precedent for the Animal Rule approval pathway.

Approved Precedent MCMs Under Animal Rule

The FDA has approved three radiation MCMs under the Animal Rule, establishing clear regulatory precedent for the GI-ARS countermeasure development pathway. These approvals demonstrate that the Animal Rule is a viable and FDA-accepted pathway for radiation countermeasures, and provide a roadmap for RadShield™'s regulatory strategy:

Approved MCM	Indication	Route	Approval Year	Relevance to RadShield™
Neupogen (filgrastim, G-CSF) — Amgen	H-ARS (neutrophil recovery)	Subcutaneous injection	2015	Established Animal Rule precedent; hematopoietic ARS only — GI-ARS unaddressed
Leukine (sargramostim, GM-CSF) — Partner	H-ARS (myeloid recovery)	SC or IV injection	2018	Second Animal Rule approval; confirms

				pathway viability; injection only
Nplate (romiplostim) — Amgen	H-ARS (platelet support)	Subcutaneous injection	2021	Third Animal Rule approval; injection required; no GI coverage
RadShield™ (YK-4-250) — Trocar Pharma	GI-ARS (FIRST IN CLASS)	ORAL — decisive differentiator	In Development	First and only oral GI-ARS countermeasure in active development with DoD validation

Current Regulatory Status and Next Steps

The Company has completed its Pre-IND meeting with the FDA and received written feedback from FDA on the proposed development program for RadShield™. This Pre-IND interaction represents a critical regulatory milestone, as it indicates FDA's engagement with and acceptance of the development pathway concept, and provides the Company with FDA's specific comments on study design, endpoint selection, and IND content requirements. The Company has incorporated FDA's feedback into its development plan.

The completed preclinical work as of the date of this Memorandum includes: synthesis of 400 grams of YK-4-250 under non-GMP conditions (sufficient for non-clinical studies and initial formulation work); bioanalytical assay development and validation for drug quantification in biological matrices; single-dose pharmacokinetic studies in C57BL/6 mice characterizing absorption, distribution, metabolism, and elimination; comprehensive in vitro safety pharmacology covering cardiovascular (hERG assay), respiratory (conscious rat respiratory safety pharmacology), and central nervous system (modified Irwin test) endpoints; multiple genotoxicity studies (bacterial reverse mutation assay and in vivo micronucleus assay); metabolic stability studies; CYP450 inhibition and induction panels; and protein binding studies. These studies collectively constitute a substantial portion of the non-clinical safety package required for IND submission.

The key remaining IND-enabling activities to be funded by this Offering are: GLP repeat-dose toxicology studies in rat and mini-pig models; a pivotal GI-ARS GLP efficacy study; and cGMP manufacture of at least 3 kilograms of YK-4-250 API for clinical trial use. Upon completion of these studies, the Company intends to submit an Investigational New Drug Application (IND) to FDA and initiate Phase 1 clinical safety trials. The Animal Rule approval process requires that human pharmacokinetic data be collected in Phase 1 to support dose selection, but does not require Phase 3 human efficacy trials — compressing the clinical development timeline relative to conventional drug development.

FDA Animal Rule IND to Approval Timeline

Based on the established Animal Rule precedent timeline and RadShield™'s current stage of development, the Company projects the following development milestones from successful completion of this Offering. These timelines are estimates and are subject to significant uncertainty including FDA review timelines, clinical trial enrollment, and study outcomes:

Milestone	Projected Timeline	Funding Source	Significance
GLP Toxicology Completion	Months 1–12 post-close	Series A (\$6M)	Required for IND submission; last major preclinical hurdle
IND Submission to FDA	Month 12–15 post-close	Series A	Initiates formal FDA review; unlocks clinical trials
Phase 1 Safety Trial Initiation	Month 15–18 post-close	Series A (\$8M)	First human exposure; confirms safety and PK profile
Phase 1 Completion / FDA EoP1	Month 24–30 post-close	Series A	FDA End-of-Phase 1 meeting; confirms Phase 2 design
Phase 2 Efficacy / Animal Rule Studies	Month 30–48 post-close	Series A (\$11M)	Pivotal efficacy data; core of Animal Rule application
BLA/NDA Submission	Month 48–54 post-close	Series A / Series B	Initiates FDA approval review; 12-month PDUFA clock
FDA Approval Target	Month 60–66 post-close	Post-approval revenue	Commercial launch; government procurement contracts
BARDA/SNS Initial Procurement	Within 12–24 months of approval	Government contracts	\$7B+ Phase 1 SNS procurement; \$15.9B military market

MARKET OPPORTUNITY

RadShield™ addresses three primary government procurement markets — U.S. and allied national stockpiles, military communities, and homeland security first responders — plus significant commercial verticals in oncology, space, and civilian preparedness. The combined global Total Addressable Market for initial procurement across all three government markets exceeds \$65 billion at the mid-dose pricing scenario (\$3,500 per person treatment course average), with long-term full-market penetration exceeding \$100 billion. These figures are derived from publicly available government data on force size, stockpile requirements, and procurement budgets, combined with the Company's pricing model.

Market 1 — U.S. Strategic National Stockpile (SNS)

The U.S. Strategic National Stockpile (SNS), managed by the HHS Administration for Strategic Preparedness and Response (ASPR) and informed by the Public Health and Emergency Medical Countermeasure Enterprise (PHEMCE), is the primary federal mechanism for acquiring, stockpiling, and deploying medical countermeasures (MCMs) for mass-casualty radiation events. The SNS currently stockpiles the three approved H-ARS MCMs and represents the most directly preceded procurement vehicle for a newly approved radiation countermeasure.

The Project BioShield Act of 2004 specifically authorizes the HHS Secretary to contract with manufacturers for MCM products still in development or lacking traditional commercial markets — directly applicable to RadShield™ in its current development stage. FY2024 HHS ASPR budget priorities explicitly include radiation MCMs targeting ARS, reflecting a documented and funded government need directly aligned with RadShield™'s indication. Historical BARDA procurement contracts for approved radiation MCMs have ranged from \$200 million to \$400 million per product, with development funding of \$100 million or more preceding commercial procurement — establishing a clear financial precedent for the magnitude of government investment available to a successful GI-ARS countermeasure.

Stockpile sizing for GI-ARS countermeasures is based on nuclear detonation planning scenarios developed under FEMA's National Planning Scenario 1 (improvised nuclear device detonation in a major U.S. city) and RAND/DHS modeling that estimates 100,000 to 500,000 individuals at risk of lethal radiation doses in a major urban nuclear event. A comprehensive national preparedness posture would require an initial procurement target of 2,000,000 treatment courses to cover multiple major urban events plus pre-positioned reserves, scaling to 10,000,000 or more courses for full preparedness across all FEMA regions, with ongoing annual shelf-life replenishment representing 20 to 25 percent of total stockpile value per year.

SNS Procurement Scenario	Treatment Courses	Total Doses (avg 7/course)	Total Value (Mid \$3,500)
Phase 1: Initial Procurement Target	2,000,000	14,000,000	\$7.0 Billion
Phase 2: Full SNS Target	10,000,000	70,000,000	\$35.0 Billion
Annual Shelf-Life Replenishment (est.)	500,000/year	3,500,000/year	\$1.75 Billion/year

Allied Nation National Stockpiles

The Five Eyes intelligence alliance (U.S., United Kingdom, Canada, Australia, New Zealand), 32 NATO member states, and key Indo-Pacific allies (Japan, South Korea, Israel) maintain national-level pharmaceutical stockpiles for CBRN emergency preparedness. Each of these nations faces the same gap — no approved GI-ARS countermeasure — and the same strategic pressure to address it. Allied nation initial procurement is estimated at approximately 1.5 million treatment courses, representing approximately \$5.3 billion at mid-dose pricing, with allied nation military and first responder markets providing an additional \$30 billion or more in procurement potential.

Market 2 — U.S. Military Community (All Branches)

The U.S. military community represents the highest-priority procurement segment for RadShield™. The Department of Defense has a statutory obligation under Title 10 of the U.S. Code to protect the health of service members and their dependents, and has demonstrated repeated willingness to invest in CBRN countermeasures at substantial cost. Nuclear-capable adversary threats in the Indo-Pacific and European theaters, nuclear-powered vessel service for the Navy, nuclear weapons custodial duties for Air Force and Army units, and the risk of radiological terrorism in domestic defense installations all create documented operational needs for GI-ARS countermeasures.

Based on Defense Manpower Data Center (DMDC) data, the U.S. military community eligible for RadShield™ procurement encompasses approximately 4.9 million individuals across all components. At the mid-dose pricing scenario (\$3,500 per person average treatment course across the 3- to 12-dose protocol), the total U.S. military community market represents approximately \$15.9 billion. This includes 1.33 million active duty service members across all five branches, 770,000 National Guard and Reserve personnel, 350,500 essential DoD civilian employees, and approximately 2.1 million military dependents enrolled in the DEERS system.

Within the military community, certain sub-populations represent immediate priority procurement targets due to specifically elevated operational radiation risk: the Nuclear Navy (~22,000 personnel aboard nuclear-powered submarines and carriers), nuclear weapons custodial units (~15,000 Air Force and Army personnel), CBRN Defense Units (~35,000 trained specialists), and forward-deployed forces in the Indo-Pacific and European theaters (~100,000 most exposed to nuclear-capable adversary threats). These high-priority sub-populations represent an initial military procurement opportunity of approximately \$250 million to \$500 million before broader DoD force-wide procurement is initiated.

Market 3 — Homeland Security First Responders

The U.S. Fire Administration (USFA/DHS) reports approximately 4.6 million first responders serving across the United States — police officers, firefighters, EMTs, paramedics, hazmat specialists, coast guard personnel, and search and rescue specialists. First responders are uniquely vulnerable during the post-detonation response phase of a nuclear or radiological incident, as they are among the first to enter contaminated zones, often before comprehensive dosimetry and situational awareness are established. Pre-positioning RadShield™ within first responder agencies represents both a life-protection measure and an operational continuity imperative.

DHS/FEMA procurement for first responders flows through the Homeland Security Grant Program (HSGP), Urban Areas Security Initiative (UASI) grants targeting the 30 highest-risk urban areas,

and direct federal procurement for federal agencies. Career and professional first responders (approximately 1.97 million) represent the initial priority procurement base, with trained volunteer forces (approximately 1.63 million additional) representing Phase 2 expansion. At mid-dose pricing, the career first responder market represents approximately \$6.9 billion, with the full professional and volunteer force representing approximately \$16.1 billion.

Consolidated Global TAM Analysis

The following table presents the consolidated Total Addressable Market across all three primary government market segments and their allied nation equivalents, providing the full global commercial opportunity facing RadShield™ upon FDA approval and government procurement qualification:

Market Segment	Treatment Courses	Low (\$1,500)	Mid (\$3,500)	High (\$6,000)
U.S. SNS — Phase 1 Initial	2,000,000	\$3.0B	\$7.0B	\$12.0B
U.S. SNS — Full Target	10,000,000	\$15.0B	\$35.0B	\$60.0B
U.S. Military (All Components)	4,553,500	\$6.8B	\$15.9B	\$27.3B
U.S. First Responders (Career)	1,970,000	\$3.0B	\$6.9B	\$11.8B
Allied National Stockpiles (Initial)	1,525,000	\$2.3B	\$5.3B	\$9.2B
Allied Military Forces	4,125,000	\$6.2B	\$14.4B	\$24.8B
Allied First Responders (Career)	4,515,000	\$6.8B	\$15.8B	\$27.1B
GLOBAL TAM (INITIAL / PHASE 1)	~18,688,500	~\$28.0B	~\$65.4B	~\$112.1B
GLOBAL TAM (FULL / LONG-TERM)	~29,568,500	~\$44.4B	~\$103.5B	~\$177.5B

Additional Commercial Markets

Beyond the three primary government procurement markets, RadShield™ has significant commercial potential in medical oncology (protection of cancer patients undergoing radiation therapy), space exploration (NASA, SpaceX, Blue Origin crew health programs), nuclear energy worker protection, and direct-to-consumer civilian preparedness. The global radiation therapy market exceeds \$8 billion annually, with approximately 800,000 patients per year receiving external beam radiation therapy in the U.S. alone. The Company anticipates pursuing these commercial markets following initial government procurement launch, with regulatory strategy and pricing to be determined based on Phase 2 data and market conditions.

COMPETITIVE LANDSCAPE

RadShield™ competes, or may in the future compete, in the radiation MCM market with existing approved agents and potential future entrants. Understanding this competitive environment is essential for investors assessing the Company's market position and commercial prospects.

Currently Approved Radiation MCMs: As noted throughout this Memorandum, the three currently FDA-approved radiation MCMs — Neupogen (Amgen), Leukine (Partner Therapeutics), and Nplate (Amgen) — address exclusively the Hematopoietic ARS syndrome. None of these agents provides any benefit against GI-ARS, the primary cause of early death at radiation doses above 6 Gy. Neupogen and Leukine stimulate white blood cell production; Nplate stimulates platelet production. All three require injection for administration. At radiation doses above approximately 8 Gy — where GI-ARS dominates the clinical picture — these agents provide little to no survival benefit. They are complements to, not competitors of, a GI-ARS countermeasure such as RadShield™.

Pipeline GI-ARS Candidates: The Company is aware of several research programs and early-stage candidates that have been investigated for GI-ARS activity, including BIO 300 (Humanetics Corporation), CBLB502 (Cleveland BioLabs, now known as Humanigen/Aeterna), and various investigational agents studied under DoD and NIH funding. As of the date of this Memorandum, none of these candidates has advanced to the same stage as RadShield™ (Pre-IND meeting completed with FDA) with the combination of validated DoD/AFRRI preclinical data, an exclusive university license for the underlying compound, and an oral delivery profile. The competitive advantage RadShield™ holds — being the most advanced oral GI-ARS countermeasure with DoD validation — diminishes as potential competitors advance, reinforcing the time-sensitive nature of this investment opportunity.

Potential Future Large-Pharma Entrants: Large pharmaceutical companies with substantially greater resources than the Company could potentially develop competing GI-ARS countermeasures. The radiation MCM market historically has not attracted major pharmaceutical company investment due to its reliance on government procurement rather than commercial sales — a business model that requires specialized expertise in federal contracting and regulatory affairs that most large commercial pharmaceutical companies lack. However, this dynamic could change, and any entry by a well-capitalized competitor would be a material risk to the Company's competitive position and market share.

Competitive Moat Analysis: The Company's competitive position is protected by several structural advantages: the Georgetown University Exclusive License Agreement, which prevents any other party from developing or commercializing YK-4-250 for any indication without the Company's consent; the substantial DoD/AFRRI preclinical dataset, which has taken years and \$4.5 million or more to develop and cannot be replicated quickly by a new entrant; the completed Pre-IND interaction with FDA, which provides regulatory clarity that competitors would need to independently obtain; the Company's established relationships with DoD/AFRRI, BARDA, and government procurement personnel, which represent years of institutional relationship building; and the oral delivery profile, which is both a practical operational advantage and a component of the Company's IP strategy through formulation patents.

Competitive Factor	RadShield™ (YK-4-250)	Approved H-ARS MCMs	Pipeline Competitors
GI-ARS Coverage	YES — primary indication	NO — hematopoietic only	Some — less validated
Route of Administration	ORAL — decisive advantage	Injection required	Varied; mostly injection
DoD/AFRRI Validation	\$4.5M+ completed studies	Post-approval	Limited or none known
Pre-IND Meeting with FDA	COMPLETED	N/A (approved)	Unknown/likely not
Exclusive University License	Georgetown University (2022)	N/A	None known
Ambient Storage / No Cold Chain	YES — critical for mass-casualty	Cold chain required (some)	Unknown
Survival Data at LD50	88% vs 58% control (+30%)	N/A (different indication)	Less compelling known
Time to Market (est.)	5 years post-FDA approval path	Already approved	Likely later stage than TPHR

THE COMPANY AND MANAGEMENT

Corporate History and Structure

Trocar Pharma, Inc. was incorporated in the State of Delaware on February 10, 2020 as the successor entity to Newatti Pharmaceuticals LLC, which was itself formed in the State of Delaware on November 7, 2019. The conversion from limited liability company to corporation was completed through a formal Plan of Conversion, and the Company has been operating as a Delaware corporation since February 2020. The Company has qualified as a foreign corporation in the State of Maryland and maintains its Delaware registered agent at 160 Greentree Drive, Suite 101, Dover, Kent County, Delaware 19904, through National Registered Agents, Inc. The Company's principal offices are located in the Washington, D.C. metropolitan area, convenient to its key research partners at Georgetown University, AFRRRI, NIH, and the Uniformed Services University.

The Company's corporate structure as of the date of this Memorandum includes an authorized capital stock consisting of common stock and Series A Convertible Preferred Stock, with the Series A Preferred Stock constituting the security being offered hereby. The Company has adopted Bylaws and an initial corporate governance framework consistent with its Delaware charter. A Shareholders Agreement is in place among the founding shareholders. The Board of Directors consists of Milton L. Brown, MD, PhD, FNAI and Damian V. Dolland, MBA as initial directors pursuant to the Organizational Action by Sole Incorporator in Lieu of Meeting dated February 10, 2020.

The Company has retained Covington & Burling LLP for regulatory affairs and government relations counsel, Akin Gump Strauss Hauer & Feld LLP for corporate and transactional legal matters, Harness Dickey & Pierce PLC for intellectual property prosecution and portfolio management, and Shami Messinger PLLC for additional corporate legal support. The Company has engaged TCG GreenChem, Inc. as its primary chemistry, manufacturing, and controls (CMC) services provider under a Master Services Agreement. The Company holds an IRS Employer Identification Number (EIN) and maintains appropriate corporate registrations in all jurisdictions where it conducts business.

Georgetown University Exclusive License Agreement

The most foundational intellectual property asset of the Company is its Exclusive License Agreement with Georgetown University (Agreement No. 2022-0493, executed June 29, 2022). This Agreement grants Trocar Pharma, Inc. worldwide exclusive rights to develop, manufacture, use, offer for sale, sell, and import the YK-4-250 compound and all related patents, technology, data, and know-how for all fields of use and all therapeutic indications.

Georgetown University is one of the nation's premier research universities, home to the Georgetown University Medical Center, the Lombardi Comprehensive Cancer Center, and a long tradition of translational pharmaceutical research. The YK-4-250 compound was identified and characterized by Georgetown University researchers, and the Exclusive License Agreement transfers to the Company the right to fully exploit this intellectual property in exchange for the terms agreed upon in the Agreement. The Company retains sublicensing rights with Georgetown University consent, and Georgetown University retains ownership of the underlying patent rights while the Company holds the worldwide exclusive development and commercialization license.

The Exclusive License Agreement is attached in summary form as Exhibit C to this Memorandum. Investors are encouraged to review this agreement carefully, as it constitutes the Company's primary competitive moat against all current and future competitors who would seek to independently develop the YK-4-250 compound for any indication. The existence of this exclusive license means that any pharmaceutical company seeking to develop a competing GI-ARS countermeasure based on the ACE2 upregulation mechanism using the YK-4-250 molecule would need to either develop an entirely distinct chemical entity (a process requiring years of additional research) or negotiate a license with Trocar Pharma, Inc. The Company also maintains polymorph and formulation IP arising from collaborative research at Virginia Commonwealth University, providing additional layers of IP protection beyond the Georgetown compound patent.

Leadership Team Biographies

Milton Brown Sr., PhD, MD, FNAI — Founder, Irrevocable Chairman & Chief Executive Officer

Milton L. Brown M.D., Ph.D is the Founder, Irrevocable Chairman of the Board, and Chief Executive Officer of Trocar Pharma, Inc. Dr. Brown's role as Chairman is permanent and irrevocable under the Company's Certificate of Incorporation and Stockholders Agreement for so long as he holds any Class B Common Stock. He is a physician-scientist and drug developer whose career has spanned the University of Alabama at Birmingham (UAB), the University of Virginia (UVA), Georgetown University, and the Inova Schar Cancer Institute. He is a Fellow of the National Academy of Inventors (FNAI), a distinction awarded to academic inventors who have demonstrated a prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on the quality of life, economic development, and the welfare of society. Dr. Brown holds doctoral degrees in both Organic Chemistry (PhD) and Medicine (MD) and has spent his career at the intersection of basic drug discovery and development and clinical translation.

Dr. Brown designed and synthesized the YK-4-250 compound (RADSHIELD) and recognized its potential as a radiation MCM based on its mechanism of action through the renin-angiotensin system. He led the licensing negotiation with Georgetown University that secured the Company's exclusive worldwide license, and he has been the scientific and strategic architect of the Trocar/Armed Forces Radiobiology Research Institute (AFRRI) collaborative research program with the NIH NIAID that generated the Company's \$4.5 million or more in validated preclinical data. His relationships with AFRRI scientist, and NIH scientific officers, are central to the Company's regulatory strategy and government procurement pathway. Dr. Brown serves as the Company's primary scientific spokesperson and leads the management of the Georgetown license relationship.

Damian V. Dolland, MBA — Co-Founder

Mr. Damian V. Dolland holds a Master of Business Administration from Duke University's Fuqua School of Business and brings significant institutional finance experience from Morgan Stanley and J.P. Morgan, where he worked on capital markets transactions and investment advisory relationships. Mr. Dolland co-founded Trocar Pharma, Inc. with Dr. Brown and has been responsible for the Company's capital formation strategy, investor relations, and business development since inception.

Mr. Dolland leads the management of the Company's relationships with capital consultants, institutional investors, and strategic partners. He played a central role in the negotiation of the Georgetown Exclusive License Agreement and the Shareholders Agreement. He oversees the

Company's financial planning, budgeting, and use-of-proceeds management. His financial structuring expertise and investment banking relationships are central to executing this Series A Offering and positioning the Company for government procurement engagement and potential strategic transactions with pharmaceutical or defense contractors.

Donald "Skip" Trump, MD — Clinical Development and Oncology Advisor

Donald Trump, M.D. (known professionally as "Skip" Trump) is a Johns Hopkins University-trained physician with extensive executive leadership experience in academic oncology, including as Director of the Roswell Park Cancer Institute in Buffalo, New York and as a senior clinical leader at the Inova Schar Cancer Institute in Fairfax, Virginia. Dr. Trump has spent his career at the intersection of radiation oncology, medical oncology, and translational drug development, providing him with direct expertise in both the clinical manifestations of radiation injury and the regulatory and clinical trial requirements for radiation countermeasures.

Dr. Trump oversees clinical trial design, regulatory strategy, and medical affairs for RadShield™. He is responsible for the Company's FDA relationship management, clinical trial protocol development and clinical endpoint selection,

Melissa Brooks, CPA — Chief Financial Officer

Ms. Melissa Brooks is a Certified Public Accountant who received her undergraduate education at Oakwood University and her graduate business education at the University of Maryland. She brings public accounting experience from PricewaterhouseCoopers (PwC), one of the world's premier professional services firms, where she developed expertise in financial reporting, internal controls, and audit procedures for complex organizations. At Trocar Pharma, Ms. Brooks manages the Company's financial operations, accounting systems, reporting, and compliance functions, and will be responsible for implementing the use-of-proceeds governance and financial reporting framework required under the terms of this Offering.

Joy Hinton, Esq. — General Counsel

Ms. Joy Hinton holds an undergraduate degree from Harvard University and a Juris Doctor from Tulane University Law School, and has practiced corporate and transactional law at Davis Polk & Wardwell, one of the world's leading law firms. At Trocar Pharma, Ms. Hinton serves as General Counsel with responsibility for intellectual property protection and enforcement, corporate governance, regulatory compliance, licensing negotiations, and all legal matters related to the Company's financing, contracting, and commercialization activities. Her IP expertise is particularly valuable in managing the Georgetown Exclusive License Agreement and pursuing additional IP protections arising from the Company's research collaborations.

Joseph Armstrong III, PhD — CMC Advisor

Dr. Joseph Armstrong III holds degrees from the University of Colorado and the University of Virginia and brings pharmaceutical industry experience from Merck & Co., one of the world's leading pharmaceutical companies. Dr. Armstrong guides Trocar Pharma's chemistry, manufacturing, and controls (CMC) strategy, covering API (active pharmaceutical ingredient) synthesis, formulation development, analytical method development, and the manufacturing scale-up pathway from laboratory-scale to cGMP clinical trial manufacture. His teams understanding of the FDA Animal Rule framework, and the regulatory requirements for radiation countermeasure approval is directly applicable to RadShield™'s development pathway. His expertise is essential

for the IND submission and clinical trial material manufacturing that are among the primary uses of proceeds from this Offering.

Strategic Research Partnerships

The Company has established a network of research and development partnerships with leading academic, government, and commercial institutions that collectively constitute a significant source of scientific validation, non-dilutive research funding, and technical expertise:

Partner Institution	Collaboration Type	Status	Value to Company
DoD / AFRRRI (Armed Forces Radiobiology Research Institute)	Sponsored preclinical research in GI-ARS, H-ARS, and lung injury	Active — ongoing collaboration	\$4.5M+ completed; federal validation; procurement pathway
Georgetown University	Exclusive licensor; YK-4-250 compound patent holder	Active — Exclusive License executed 2022	Foundational IP moat; worldwide exclusivity; institutional credibility
NIH / NIAID	IBD and antiviral research; 1U01 grant process active	Active — grant application	Non-dilutive funding; IND-enabling milestones; pipeline expansion
Uniformed Services University (USU)	Military radiation medicine; DoD formulary pathway	Active	Federal countermeasure validation; DoD acquisition pathway
George Mason University	IBD models; colon cancer antiproliferative studies	Active	Pipeline diversification; additional IP development
Old Dominion University (ODU)	Pharmacokinetic studies; dosing optimization	U01 ongoing	Non-dilutive PK data; IND package contribution
Virginia Commonwealth University (VCU)	Crystal form and polymorph studies	Completed	Manufacturing IP; solid-form protection; patent strategy
TCG GreenChem	CMC services; solubility and formulation	Active — MSA executed	IND-readiness; formulation de-risking; commercial-scale pathway

GOVERNMENT CONTRACTING FRAMEWORK

The commercialization strategy for RadShield™ is built on established U.S. government and allied nation procurement mechanisms specifically designed for national security pharmaceutical assets. These mechanisms are statutory, fully operational, and have been repeatedly utilized across prior radiation and biological countermeasure programs. The Company's revenue model assumes execution within existing legal frameworks — not the creation of new legislation or speculative emergency funding.

U.S. HHS — BARDA and Project BioShield

The Biomedical Advanced Research and Development Authority (BARDA), part of HHS's Administration for Strategic Preparedness and Response (ASPR), serves as the primary federal agency for advanced development funding and procurement of medical countermeasures. BARDA operates under the legal authorities of the Project BioShield Act of 2004 and the Pandemic and All-Hazards Preparedness Act (PAHPA), which together authorize BARDA to: fund advanced development of MCMs through cost-reimbursable contracts and Other Transaction Authority (OTA) agreements; procure MCM products under development that lack traditional commercial markets; and maintain ongoing procurement contracts for approved MCMs to support SNS replenishment.

BARDA's track record with radiation MCMs is directly relevant to RadShield™. BARDA funded the advanced development and initial procurement of all three currently approved radiation MCMs (Neupogen, Leukine, and Nplate), with total program investments of \$100 million or more per agent in development funding and \$200 million to \$400 million in initial procurement contracts. These precedents establish that the U.S. government has both the legal authority and the demonstrated financial capacity to invest in novel radiation MCMs at a scale that would represent a significant return on the Series A investment in RadShield™ development.

BARDA typically engages with MCM developers through two primary contracting mechanisms: Other Transaction Authority (OTA) agreements for development-stage work (which offer flexibility in intellectual property treatment, milestone-based payment structures, and faster award timelines than traditional FAR-based contracts), and Firm Fixed Price (FFP) contracts for post-approval procurement. The Company intends to pursue BARDA engagement during the Phase 1 clinical stage, well before FDA approval, consistent with BARDA's historical pattern of early engagement with promising MCM candidates. The Company's existing DoD/AFRRI relationship provides a direct introduction pathway to BARDA's radiation countermeasure program officers.

U.S. Department of Defense Procurement

The Department of Defense represents a parallel and complementary procurement pathway to BARDA/HHS, with its own legal authorities, contracting mechanisms, and institutional procurement requirements. The Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense (JPEO-CBRND) is the primary DoD acquisition authority for CBRN medical countermeasures, including radiation MCMs. The Defense Health Agency (DHA) manages formulary inclusion for all military treatment facilities and field medical supply chains.

DoD contracting for radiation MCMs typically begins with research collaboration agreements (such as the existing AFRRI relationship) and progresses through OTA development agreements, followed by IDIQ (Indefinite Delivery / Indefinite Quantity) contracts that establish a ceiling

procurement value and minimum guaranteed purchase, allowing the government to issue delivery orders as operational needs and budget cycles permit. IDIQ contracts are particularly favorable for MCM procurement as they support multi-year budgeting within the DoD's Future Years Defense Program (FYDP) planning cycle and allow rapid surge procurement during periods of elevated threat.

The Company has prepared a Sole Source Justification Memorandum (see Exhibit F) supporting the rationale for non-competitive procurement of RadShield™. The legal basis for sole source justification under FAR Part 6 includes circumstances where the property or services required are available from only one responsible source — precisely the situation for RadShield™, which is the only known GI-ARS countermeasure with an exclusive university compound license, DoD-validated preclinical efficacy, completed Pre-IND FDA interaction, and an oral delivery profile. The Company's government affairs team is actively engaging with JPEO-CBRND and DHA personnel to position RadShield™ as a priority program within the DoD MCM acquisition pipeline.

DHS/FEMA First Responder Procurement

The Department of Homeland Security (DHS) and the Federal Emergency Management Agency (FEMA) manage the federal grant and direct procurement programs through which first responder agencies acquire CBRN countermeasures. The primary mechanisms are the Homeland Security Grant Program (HSGP), which provides annual grants to states for first responder preparedness equipment including MCMs; the Urban Areas Security Initiative (UASI), which provides targeted grants to the 30 highest-risk metropolitan areas; and direct federal procurement for federal law enforcement and emergency response agencies.

Following FDA approval, RadShield™ would be eligible for inclusion in FEMA's Authorized Equipment List (AEL), which is the definitive list of FEMA-approved items eligible for grant-funded purchase. AEL inclusion is a critical enabler of first responder market access, as most state and local agencies can only purchase MCMs from the AEL using federal grant funds. The Company intends to pursue AEL inclusion as part of its post-approval commercialization strategy, concurrent with DoD and BARDA procurement activities.

Allied Nation Procurement Pathways

Allied nation procurement of RadShield™ would proceed through several parallel mechanisms. Foreign Military Sales (FMS) and Direct Commercial Sales (DCS) are the primary U.S. government-administered mechanisms for allied nation acquisition of defense-related products, including MCMs. The NATO Support and Procurement Agency (NSPA) enables multi-nation cooperative procurement on behalf of member states. Country-specific regulatory approvals (EMA for EU nations, PMDA for Japan, TGA for Australia, MFDS for South Korea, MHRA for the United Kingdom) are required for commercial distribution in each allied nation, though some jurisdictions allow for accelerated approval based on FDA Animal Rule approval through expedited review procedures.

Procurement Milestone Alignment

Development Phase	Regulatory Milestone	Contracting Action	Capital Implication
Preclinical (Current)	IND-enabling studies completion	BARDA/DoD OTA engagement; Sole Source positioning	Non-dilutive development funding begins
Phase 1 Clinical	IND submission; Phase 1 initiation	OTA development award; IDIQ contract negotiation	Risk reduction; BARDA co-investment potential
Phase 2 / Animal Rule	Pivotal efficacy data; BLA/NDA filing	Manufacturing scale-up OTA; initial SNS procurement agreement	Revenue visibility established
FDA Approval	Animal Rule approval; lot release	Fixed-price procurement contracts; IDIQ delivery orders	MAJOR revenue inflection — \$650M Year 1
Post-Approval Year 2+	Replenishment cycles; allied approvals	Multi-year SNS contracts; DoD IDIQ; allied FMS	Recurring ARR \$2.5B+ U.S.; \$5.5B+ global

FINANCIAL PROJECTIONS

IMPORTANT DISCLAIMER: The financial projections contained in this section are forward-looking estimates based on publicly available U.S. government data on force size and stockpile requirements, published demographic sources, standard pharmaceutical market sizing methodologies, and management assumptions regarding pricing, procurement timelines, and market penetration rates. These projections are directional and illustrative. They are NOT guarantees, representations, or warranties of future performance. Actual results may differ materially from those projected, including the possibility that the Company generates no revenue at all if RadShield™ fails to receive FDA approval or fails to achieve government procurement. Investors are strongly advised to treat all financial projections in this section with caution and to carefully review the Risk Factors section before making any investment decision. Detailed financial models and all underlying assumptions are available during due diligence under NDA.

Valuation Summary

The following valuation metrics were developed using standard discounted cash flow (DCF) methodology, revenue multiple approaches, and risk-adjusted probability weighting appropriate for a pre-Phase 1 pharmaceutical company. The Base Case assumes regulatory approval under the Animal Rule, government procurement contracts for military and SNS priorities, and a pricing model of \$2,000 per treatment course average across the dose range. The Upside Case assumes faster adoption, premium government pricing, and successful penetration of allied nation markets ahead of the Base Case timeline.

Valuation Metric	Base Case	Upside Case
7-Year DCF Enterprise Value	\$13.7B – \$20.5B	\$49.8B – \$74.2B
Risk-Adjusted Enterprise Value (10% prob. Base)	\$6.8B – \$10.3B	\$2.5B – \$3.7B (5% prob.)
2028 Projected Revenue	\$5.4B (53% EBITDA margin)	\$15.6B (64% EBITDA margin)
5-Year Revenue Multiple (4–5x)	\$23.4B – \$29.3B	\$70.7B – \$88.4B
WACC Range Applied	10.4% – 12.4%	10.4% – 12.4%
Exit EBITDA Multiples	9–11x	9–11x
Perpetual Growth Rate	0.5% – 1.5%	0.5% – 1.5%
Base Pricing Assumption (per course)	\$2,000 average	\$4,000 average
IP Valuation (First-Pass by Patent Counsel)	~\$76B (preliminary; under formal review)	Per-indication licensing TBD

10-Year Government Procurement Revenue Projection

The following 10-year revenue model reflects projected RadShield™ government procurement revenue following FDA approval, using the mid-dose scenario (\$3,500 average per person across the 3–12 dose protocol). Year 1 assumes FDA approval and/or EUA and initial procurement contract awards. Years 2–5 reflect primary buildout of SNS Phase 1, military pre-positioning, and first responder grant procurement. Years 6 and beyond reflect steady-state shelf-life replenishment plus allied nation expansion. This model does not include commercial oncology, IBD, space, or civilian preparedness revenues, which represent potential additional upside.

Year	SNS/Stockpile	U.S. Military	U.S. First Resp.	Allied Nations	Annual Total
Year 1	\$350M	\$150M	\$50M	\$100M	\$650M
Year 2	\$1.20B	\$600M	\$300M	\$400M	\$2.50B
Year 3	\$1.50B	\$1.20B	\$700M	\$800M	\$4.20B
Year 4	\$1.20B	\$1.80B	\$1.00B	\$1.20B	\$5.20B
Year 5	\$800M	\$2.00B	\$1.30B	\$1.50B	\$5.60B
Year 6 (replenishment)	\$700M	\$1.50B	\$1.00B	\$1.30B	\$4.50B
Year 7 (replenishment)	\$700M	\$1.20B	\$900M	\$1.20B	\$4.00B
Years 8–10 (combined)	\$1.80B	\$3.00B	\$2.40B	\$2.70B	\$10.00B*
10-YEAR TOTAL	\$8.25B	\$11.45B	\$7.65B	\$9.30B	\$36.65B

*Years 8–10 combined figure. Annual average approximately \$3.3B in steady-state replenishment and allied nation expansion phase.

SAM/SOM Framework and Steady-State ARR

Market Tier	Definition	U.S. Only (Mid)	Global (Mid)	Timeline
TAM (Total Addressable)	All 3 markets, full coverage of all eligible populations	\$58.0B	\$103.5B	Long-term vision
SAM (Serviceable Addressable)	Markets accessible post-FDA approval and SNS qualification	\$29.8B	\$54.3B	5–10 year horizon
SOM Phase 1 (Priority)	Nuclear Navy, CBRN units, initial SNS Phase 1, career FR	\$9.5B	\$14.2B	Years 1–4 post-approval
SOM Phase 2 (Expanded)	All military branches + career first responders	\$22.8B	\$37.5B	Years 3–7 post-approval
Steady-State ARR	Shelf-life replenishment + new entrants + allied nations	\$2.5B/yr	\$5.5B/yr	Year 7+ post-approval

Development Budget Summary

The Company's total estimated development cost through Phase 2 completion and BLA/NDA filing under the FDA Animal Rule is \$34 million to \$40 million. This estimate is based on management's experience, published industry benchmarks for radiation MCM development programs, CRO cost proposals received during the Pre-IND planning process, and CMO quotations for cGMP API manufacture. The \$40 million Maximum Offering provides adequate funding for all planned development activities with a prudent working capital buffer.

The cost structure reflects the relatively efficient regulatory pathway available under the Animal Rule, which eliminates the requirement for Phase 3 human efficacy trials and substantially reduces the development timeline and cost versus conventional drug development. For comparison, a conventional Phase 3 development program in a similar indication might require \$150 million to \$300 million in total development funding before regulatory approval. The Animal Rule pathway, with its reliance on animal efficacy data and human pharmacokinetic bridging, is specifically designed for national security countermeasures where human challenge trials are not feasible.

Year 1 development priorities (GLP toxicology and IND submission, funded at \$6 million) represent the most critical near-term investment, as successful IND filing unlocks multiple non-dilutive funding

pathways including BARDA OTA agreements and NIH cooperative agreements that could supplement subsequent development phases. The Company's advisors have benchmarked Year 1 costs against comparable GLP toxicology programs for small molecule oral MCMs and believe the \$6 million allocation is adequately sized for the planned study scope, including rat and mini-pig toxicology, pivotal GI-ARS GLP efficacy, and cGMP API manufacturing.

IP Valuation and Strategic Upside

Beyond the government procurement revenue model described above, RadShield's underlying intellectual property represents a separate and potentially transformative source of value. The Company's patent counsel has conducted a first-pass IP valuation of the YK-4-250 compound patent portfolio, with preliminary estimates of approximately \$76 billion in IP licensing value across all indicated therapeutic applications. This preliminary estimate reflects technical penetration analysis for IP licensing across radiation mitigation, IBD, oncology, pulmonary fibrosis, neuroinflammation, and other pipeline indications, and represents a theoretical maximum rather than a near-term achievable figure.

The patent valuation is currently being refined and formally reviewed by patent counsel. The Company anticipates that a formal IP valuation study will be completed during the Series A funding period and will be made available to investors. The strategic value of the Georgetown Exclusive License extends beyond current development plans to include potential licensing arrangements with major pharmaceutical partners, defense contractors, and international health agencies, particularly in the event of near-term geopolitical events that accelerate government procurement timelines.

The Series A investment is made at a stage where the Company's enterprise value is primarily determined by the probability-weighted NPV of the government procurement revenue stream and the option value of the pipeline and IP licensing opportunities. At a 10% probability weighting on the base case DCF, the risk-adjusted enterprise value of \$6.8 billion to \$10.3 billion implies a current valuation that management believes is highly attractive relative to the \$40 million Series A investment, even accounting for dilution from future financing rounds required to reach commercialization.

Comparable Transaction Analysis

The Company's investment bankers and advisors have analyzed precedent transactions involving radiation MCM and national security pharmaceutical assets to provide context for the Series A valuation. Key observations from this comparable transaction analysis include:

BARDA has historically invested \$100 million to \$400 million in development and initial procurement contracts for each approved radiation MCM, providing a clear precedent for the magnitude of government investment available to RadShield upon approval. The acquisition of radiation countermeasure assets by major defense and pharmaceutical companies has been driven by national security procurement potential rather than conventional commercial market dynamics.

Pharmaceutical assets with exclusive government procurement rights, validated DoD preclinical programs, and pre-IND regulatory clearance have transacted at enterprise value multiples of 15x to 40x forward revenue at the pre-Phase 1 stage in comparable national security pharmaceutical

categories. Applying the lower end of this range to even a conservative Year 1 post-approval revenue estimate of \$650 million would imply an enterprise value upon FDA approval of approximately \$9.75 billion — a compelling return for Series A investors who invest at the current \$40 million Offering valuation.

The Company makes no representation that any acquisition, licensing transaction, or strategic partnership will occur, or that comparable transaction multiples will apply to RadShield. These comparisons are provided for illustrative purposes only and are subject to all the risks and uncertainties described in the Risk Factors section.

USE OF PROCEEDS

The following table sets forth the anticipated use of net proceeds from this Offering, assuming the Maximum Offering of \$40,000,000 is fully subscribed. The Company intends to use proceeds as described below; however, actual allocation may vary based on development progress, government contracting opportunities, clinical outcomes, non-dilutive funding awards, and other factors that management cannot predict at the time of this Memorandum. The Company will consult with the Series A board representative before reallocating more than 15% from any single category. See Exhibit E for a detailed three-year development budget.

Use of Proceeds Category	Amount	%	Description and Deliverables
GLP Toxicology Studies and IND Submission	\$6,000,000	15.0%	GLP repeat-dose toxicology in rat and mini-pig models; pivotal GI-ARS GLP efficacy study; 3 kg cGMP API manufacture; IND filing with FDA; regulatory affairs management through Pre-Phase 1 FDA meeting
Phase 1 Clinical Safety Trial	\$8,000,000	20.0%	First-in-human Phase 1 safety, tolerability, and pharmacokinetic study; CRO selection and engagement; clinical site preparation and startup; data management, biostatistics, and reporting; FDA End-of-Phase 1 meeting preparation
FDA's Animal Rule (21 CFR 314.600 for drugs	\$11,000,000	27.5%	Phase 2 efficacy trials under Animal Rule surrogate model; Biologic Rule designation pursuit; efficacy bridging studies in additional animal species; Phase 2 CRO and site costs; FDA Advisory Committee preparation and BLA/NDA filing support
CMC — Chemistry, Manufacturing and Controls	\$4,000,000	10.0%	Commercial-scale API manufacturing process development; analytical method validation and transfer; accelerated and long-term stability studies; Drug Master File (DMF) preparation; GMP quality systems implementation
Regulatory Affairs and Government Business Development	\$4,000,000	10.0%	FDA regulatory consulting; BARDA/DoD procurement engagement and proposal development; Sole Source Justification implementation; PHEMCE advocacy; NATO and allied nation regulatory filings; government affairs; Congressional engagement on MCM budgets
Corporate Operations, Legal, IP and Working Capital	\$7,000,000	17.5%	Executive compensation at 40th percentile benchmark; Covington & Burling regulatory counsel; Akin Gump corporate counsel; Harness Dickey IP prosecution and maintenance; audit and compliance; corporate maintenance; directors and officers insurance; working capital reserves
TOTAL	\$40,000,000	100.0%	Total through Phase 2 completion — targets FDA Animal Rule approval and commercial procurement launch

Management Discretion and Reallocation Policy: Management reserves the right, in its sole business judgment, to adjust the allocation of proceeds among categories in response to changed circumstances, including clinical trial results, government contracting opportunities, non-dilutive funding awards, or changes in the regulatory environment. Any reallocation exceeding 15% of any

single category will be subject to prior consultation with the Series A board representative and disclosure to all Series A stockholders in the quarterly financial report.

Non-Dilutive Funding Parallel Track: The Company is actively pursuing an NIH 1U01 cooperative agreement grant (with a Priority Score of 30 as of the most recent scoring cycle) for IND-enabling milestones, which, if awarded, would provide non-dilutive federal funding running parallel to this Offering for certain GLP toxicology and IND submission activities. An NIH 1U01 award would reduce the amount of Series A Offering proceeds required for the GLP/IND workstream and allow reallocation to accelerate evaluation using the FDA's Animal Rule (21 CFR 314.600 for drugs) or expand the medical use pipeline into IBD and other indications. There is no assurance that such grant will be awarded. Similarly, a BARDA OTA development agreement or DoD research contract, if awarded during the development period, could provide non-dilutive co-funding for Phase 1 or Phase 2 clinical activities.

Adequacy of Proceeds: The Company believes that the Maximum Offering of \$40,000,000 is sufficient to fund the development program through Phase 2 completion and BLA/NDA filing under the Animal Rule 21 CFR 314.600 approval pathway. This estimate is based on management's experience with pharmaceutical development costs, published industry data on GLP toxicology study costs, Phase 1 and Phase 2 clinical trial costs for a countermeasure indication, cGMP API manufacturing costs, and regulatory filing fees. If the Offering is not fully subscribed, the Company will prioritize activities in order of their regulatory criticality: GLP toxicology and IND submission first, followed by Phase 1 clinical trials, with Phase 2 activities funded from subsequent capital raises or non-dilutive sources as available.

INVESTOR SUITABILITY STANDARDS

The Units are being offered and sold only to "accredited investors" as defined in Rule 501(a) of Regulation D under the Securities Act of 1933, as amended, pursuant to the exemption provided by Rule 506(b) of Regulation D. The Offering is not registered under the Securities Act or any state securities law, and no regulatory authority has reviewed or approved the terms of the Offering or the accuracy of this Memorandum.

Accredited Investor Definition

Under Rule 501(a) of Regulation D, an "accredited investor" includes, among others, the following natural persons, entities, and other categories:

- A natural person with individual net worth, or joint net worth with spouse or spousal equivalent, exceeding \$1,000,000, calculated by excluding the value of the person's primary residence, and also excluding indebtedness secured by the primary residence up to the fair market value of the residence (any indebtedness in excess of the fair market value must be deducted from net worth);
- A natural person with individual income exceeding \$200,000 in each of the two most recent calendar years, or joint income with spouse or spousal equivalent exceeding \$300,000 in each of those years, in each case with a reasonable expectation of reaching the same income level in the current year;
- A natural person holding in good standing one or more professional certifications, designations, or credentials from an accredited educational institution that the SEC has designated as qualifying an individual for accredited investor status, including: General Securities Representative (Series 7) license holder; Investment Adviser Representative (Series 65) license holder; and Private Securities Offerings Representative (Series 82) license holder;
- A natural person who is a "knowledgeable employee" of the issuer of the securities being offered or sold;
- A trust with total assets exceeding \$5,000,000, not formed specifically to acquire the securities offered, whose purchase is directed by a person with such knowledge and experience in financial and business matters that such person is capable of evaluating the merits and risks of the prospective investment;
- A bank, savings and loan association, insurance company, registered investment company, business development company, small business investment company, or rural business investment company;
- A corporation, Massachusetts or similar business trust, partnership, limited liability company, or other entity, not formed for the specific purpose of acquiring the securities offered, with total assets exceeding \$5,000,000;
- An entity in which all equity owners are accredited investors;
- A family office, as defined in Rule 202(a)(11)(G)-1 under the Investment Advisers Act of 1940, with assets under management in excess of \$5,000,000 that is not formed for the specific purpose of acquiring the securities offered and whose prospective investment is directed by a person with knowledge and experience in financial and business matters;
- A family client, as defined in Rule 202(a)(11)(G)-1, of a family office meeting the description above.

Additional Suitability Requirements

In addition to qualifying as an accredited investor, an investment in the Units is suitable only for persons who meet all of the following criteria:

- Have adequate financial resources and means of providing for current needs and personal contingencies and have no current or foreseeable need for liquidity in their investment in the Units;
- Can bear the economic risk of a complete and total loss of their entire investment in the Units;
- Understand the highly speculative nature of an investment in a pre-revenue, clinical-stage pharmaceutical company and the specific risks involved in this investment, including the risks described in the "Risk Factors" section of this Memorandum;
- Have reviewed this Memorandum in its entirety, including all exhibits, prior to making a subscription decision;
- Have had the opportunity to ask questions of and receive answers from the Company and its management prior to investing;
- Have consulted with their own independent legal, tax, and financial advisors regarding the suitability of this investment for their particular financial situation, investment objectives, and tax circumstances;
- Understand that the Units are illiquid, not registered under the Securities Act or any state securities law, and subject to significant restrictions on transfer and resale;
- Understand that there is no public market for the Units and that none is expected to develop, and that they may be required to bear the financial risks of this investment for an indefinite period of time;
- Are not relying on any representation, promise, projection, or statement, written or oral, other than those expressly contained in this Memorandum and its exhibits, in making their investment decision.

Investor Representations

By executing the Subscription Agreement, each investor will be required to represent and warrant to the Company, among other things, that: (i) the investor qualifies as an accredited investor under Rule 501(a) and meets all additional suitability requirements; (ii) the investor is purchasing the Units for the investor's own account, for investment purposes only, and not with a view to, or for resale in connection with, any distribution of the Units in violation of the Securities Act; (iii) the investor has received and read this entire Memorandum and all exhibits; (iv) the investor has had the opportunity to ask questions of and receive answers from the Company and its management; (v) the investor understands the speculative and illiquid nature of the investment; (vi) the investor is able to bear the economic risk of a complete loss of its investment; (vii) neither the investor nor any beneficial owner of the investor's interests is subject to any disqualification event under Rule 506(d) of Regulation D; and (viii) the investor is authorized to make this investment and has obtained all necessary approvals and consents.

RISK FACTORS

AN INVESTMENT IN THE UNITS INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD CAREFULLY CONSIDER EACH OF THE FOLLOWING RISK FACTORS, IN ADDITION TO ALL OTHER INFORMATION CONTAINED IN THIS MEMORANDUM, BEFORE MAKING AN INVESTMENT DECISION. IF ANY OF THE FOLLOWING RISKS OCCUR, THE COMPANY'S BUSINESS, FINANCIAL CONDITION, AND RESULTS OF OPERATIONS COULD BE MATERIALLY AND ADVERSELY AFFECTED, AND YOU MAY LOSE ALL OR A SUBSTANTIAL PORTION OF YOUR INVESTMENT. THE RISKS DESCRIBED BELOW ARE NOT THE ONLY RISKS FACING THE COMPANY. ADDITIONAL RISKS AND UNCERTAINTIES NOT PRESENTLY KNOWN TO MANAGEMENT, OR THAT MANAGEMENT CURRENTLY CONSIDERS IMMATERIAL, MAY ALSO IMPAIR THE COMPANY'S OPERATIONS AND YOUR INVESTMENT.

RISKS RELATED TO CLINICAL DEVELOPMENT

We are a clinical-stage company with no approved products, no revenue from product sales, and a history of operating losses.

The Company is a clinical-stage pharmaceutical company. RadShield™ (YK-4-250) is our only product candidate in active development toward regulatory approval. We have not generated any revenue from product sales to date and have operated at a net loss since our inception in 2019. We cannot assure you that we will ever generate revenues from product sales, achieve profitability, or generate positive cash flow from operations. There is no assurance that our product candidate will receive regulatory approval, be successfully commercialized, generate meaningful government procurement contracts, or produce a return on your investment. This investment involves a high degree of financial risk that is typical of, and potentially greater than, early-stage pharmaceutical investments.

Preclinical results may not predict clinical outcomes; clinical trials may fail.

Although RadShield™ has demonstrated promising results in preclinical animal studies, including mitigating 14.3 Gy irradiation when 20 mg/kg of RadShield is dosed 24, 48 and 72 hours after the radiation exposure. The headline data obtained by AFRRl shows 88% overall survival after 30 days. We acknowledge that preclinical results do not always reliably or necessarily predict clinical trial outcomes in humans. Many pharmaceutical compounds that have shown highly promising preclinical results have subsequently failed in clinical trials due to unexpected safety issues, lack of efficacy at clinically relevant doses, pharmacokinetic differences between animal models and humans, or other unpredictable factors. The history of drug development is replete with compounds that showed dramatic preclinical activity but failed to translate into approved therapeutics. Clinical trials for RadShield™ may be delayed, suspended, or terminated due to safety concerns, insufficient patient enrollment, lack of measurable efficacy endpoints, regulatory requests for additional preclinical data, manufacturing or supply issues, or other unforeseen events. Any such failure would have a material adverse effect on the Company and investors' investment.

The FDA Animal Rule 21 CFR 314.600 approval pathway carries unique uncertainties and may not result in approval.

The FDA's Animal Rule (21 CFR 314.600 for drugs) allows animal studies to provide the primary evidence of effectiveness for new drugs/biologics when human efficacy trials are unethical or unfeasible. It applies specifically to products protecting against serious, life-threatening injuries

from chemical, biological, radiological, or nuclear (CBRN) substances. While the FDA Animal Rule has been used to approve three radiation countermeasures (Neupogen, Leukine, and Nplate), none of these was a GI-ARS countermeasure, and none was an oral small molecule. RadShield™ would be the first GI-ARS countermeasure and the first oral agent to seek Animal Rule approval in the radiation MCM category. The FDA requires that Animal Rule approval satisfy stringent evidentiary standards regarding: the reasonableness of the pathophysiological mechanism understanding; the predictiveness of the animal models for human benefit; the clarity of the relationship between animal endpoints and human benefit; and the adequacy of pharmacokinetic data for human dose selection. There can be no assurance that the FDA will accept RadShield™'s animal model data as meeting these standards, or that the FDA Scientific Advisory Committee will endorse the application. The FDA may require additional animal studies, additional species, additional pharmacokinetic data, or human challenge study elements that the Company cannot feasibly conduct.

Our dependence on a single product candidate creates extreme concentration risk.

The Company's business strategy is almost entirely dependent on the successful development and commercialization of RadShield™. We do not have any other product candidate in active clinical development. If RadShield™ fails to receive FDA approval for any reason — including safety findings, insufficient efficacy data, manufacturing issues, regulatory disagreements, or changes in the applicable regulatory framework — the Company would be left without a viable product candidate and would be unlikely to be able to fund continued operations or provide any return to investors. This concentration of all business and financial risk in a single compound and a single regulatory application is an extreme risk that investors must carefully consider.

We face early losses, high operating expenses, and negative cash flow for the foreseeable future.

The Company expects to incur significant operating losses and negative cash flow for at least the next four to six years as it funds clinical development activities, employs a growing team, and builds its regulatory and government affairs capabilities. These operating losses and cash burn will increase substantially as GLP toxicology studies, Phase 1 clinical trials, and Phase 2 clinical trials are initiated. Even if the Maximum Offering of \$40,000,000 is successfully raised, the Company cannot guarantee that such proceeds will be sufficient to fund the complete development program through FDA approval, and additional capital may be required beyond this Offering, including a Series B round for commercial manufacturing scale-up.

RISKS RELATED TO REGULATORY APPROVAL

The FDA may not approve RadShield™ even after completion of all planned clinical trials and the animal rule.

Even if RadShield™ successfully completes GLP toxicology studies, Phase 1 clinical trials, and The FDA's Animal Rule, there is no assurance that the FDA will grant regulatory approval. The FDA has broad discretion in its approval decisions and may determine that the animal efficacy data, human pharmacokinetic data, or manufacturing information are insufficient to support approval. The FDA may require additional studies, impose conditions or restrictions on approval, or decline to approve the application. Regulatory review under the Animal Rule has not been applied to a GI-

ARS oral small molecule mitigator, and the FDA's specific requirements for this novel combination of indication, mechanism, and delivery route are not fully predictable.

FDA regulatory requirements and the Animal Rule framework may change before approval.

The regulatory requirements applicable to RadShield™ under the Animal Rule may evolve before the Company completes its development program. The FDA periodically issues new guidance documents, revises existing guidance, or changes its scientific standards for evaluating MCM applications. Changes in FDA policy, scientific guidance, or the agency's interpretation of the Animal Rule could require the Company to conduct additional studies, modify its clinical or preclinical development plan, repeat studies that have already been conducted, or otherwise substantially delay or increase the cost of the approval process.

Manufacturing and GMP compliance represents a critical and unpredictable development risk.

Before the FDA will approve RadShield™ for commercial distribution, the Company must demonstrate that the drug substance (API) and drug product (finished dosage form) can be manufactured consistently, reproducibly, and in compliance with FDA's current Good Manufacturing Practice (cGMP) regulations at commercial scale. The Company does not currently own or operate manufacturing facilities and intends to rely entirely on third-party contract manufacturing organizations (CMOs). CMO selection, technology transfer, process validation, analytical method transfer, and GMP compliance auditing all involve time, cost, and uncertainty that is difficult to predict at this stage. Manufacturing failures, supply disruptions, or cGMP deficiencies observed during FDA pre-approval inspections could delay or prevent approval regardless of the clinical and preclinical data.

Shelf-life requirements for government stockpile procurement may not be achievable.

U.S. Strategic National Stockpile programs typically require a minimum shelf-life of three to five years at ambient storage conditions for MCM products, and some programs require shelf-lives of seven years or more for pre-positioned military supplies. RadShield™'s shelf-life under various storage conditions has not yet been established beyond the timeframes covered by stability studies conducted to date. If RadShield™ fails to demonstrate adequate shelf-life stability, it may not qualify for SNS procurement or DoD pre-positioned supply programs, fundamentally undermining the primary revenue model.

RISKS RELATED TO GOVERNMENT CONTRACTING

Government procurement of RadShield™ is uncertain and subject to long, unpredictable timelines.

Even after obtaining FDA approval, initiating government procurement contracts for RadShield™ typically requires 12 to 36 months for initial contract award, subject to multiple layers of government decision-making including BARDA scientific and programmatic review, Public Health and Emergency Medical Countermeasures Enterprise

Strategy (PHEMCE) strategy alignment, budget cycle timing, Congressional appropriations, contracting officer availability, and legal review. The Company's financial projections assume a Year 1 revenue of \$650 million immediately following FDA approval, but this assumes rapid

initiation of BARDA and DoD procurement contracts that may in practice take substantially longer to finalize. Government agencies are under no obligation to contract with the Company, and procurement decisions are subject to factors entirely outside the Company's control, including national security priority shifts, budget sequestration, and competitive pressure from alternative preparedness investments.

Government budget cycles, sequestration, and competing priorities may limit MCM funding.

The U.S. government's investment in radiation MCM procurement competes with numerous other national security and public health priorities, including pandemic preparedness, anthrax countermeasures, smallpox programs, nuclear infrastructure security, and other CBRN defense programs. Budget sequestration, continuing resolutions, debt ceiling constraints, or shifts in Congressional priorities toward non-CBRN national security spending could reduce or eliminate funding available for radiation MCM procurement, regardless of FDA approval status. The Company has no control over the federal budget process and cannot predict the level of government investment in radiation preparedness that will ultimately be available.

The Sole Source Justification has not been reviewed or accepted by any government agency.

The Company has prepared a Sole Source Justification Memorandum (Exhibit F) supporting the rationale for non-competitive government procurement of RadShield™. However, this memorandum represents the Company's own analysis and has not been reviewed, accepted, or acted upon by any government contracting officer, BARDA program officer, or other government official. Government agencies are generally required to conduct competitive procurement processes under the Federal Acquisition Regulations, and any sole source determination can be challenged by competitors through formal protests to the Government Accountability Office (GAO) or the U.S. Court of Federal Claims. There is no assurance that the Company will obtain a sole source contract or that any government agency will accept the sole source justification analysis.

Manufacturing scalability for mass-casualty government orders may be technically and operationally challenging.

Large-scale government stockpile contracts would require the Company to rapidly scale RadShield™ manufacturing from clinical trial quantities (kilograms) to stockpile quantities (potentially hundreds of metric tons of API, representing millions of treatment courses). This scale-up would involve qualification of new manufacturing sites, process validation at commercial scale, regulatory approval of manufacturing changes, and management of a complex supply chain for raw materials, intermediates, and finished products. Manufacturing scale-up failures, supply chain disruptions, quality system breakdowns, or cost overruns could delay or limit the Company's ability to fulfill government contracts and generate projected revenues.

RISKS RELATED TO INTELLECTUAL PROPERTY

The Company's business is fundamentally dependent on the Georgetown University Exclusive License Agreement.

The Company's competitive position, entire product pipeline, and commercial strategy are built upon the Exclusive License Agreement with Georgetown University. If Georgetown University were

to terminate the license due to a material breach by the Company (such as failure to meet development milestones, failure to make required payments, or insolvency), or if Georgetown were to challenge the validity of the license terms, the Company could lose its rights to develop and commercialize YK-4-250. In that event, the Company would have no product candidate, no viable development program, and would be unable to continue as a going concern. Investors would likely lose their entire investment. The Company must fulfill all obligations under the License Agreement to maintain its rights.

Patent validity and enforceability are uncertain; third parties may challenge our IP.

The patent rights covering YK-4-250 are owned by Georgetown University and licensed exclusively to the Company. Patent rights may be challenged by third parties through inter partes review (IPR), post-grant review (PGR), or other proceedings before the U.S. Patent and Trademark Office, or through litigation in federal courts. Pharmaceutical patents are frequently the subject of validity challenges, particularly after a product achieves commercial significance. If the patents covering YK-4-250 are found to be invalid, unenforceable, or not infringed by competing compounds, the Company's competitive position and the value of its exclusive license could be substantially impaired.

RISKS RELATED TO THE COMPANY AND MANAGEMENT

Founder Control — Dual-Class Voting Structure Concentrates All Voting Power in Milton L Brown M.D., PhD.

Milton L Brown Sr.M.D., PhD.holds all issued and outstanding shares of Class B Common Stock, each of which carries ten (10) votes per share on every matter submitted to a vote of stockholders. As a result, the Founder holds effective voting control over all corporate matters, including the election and removal of directors (other than the Series A Director), approval of mergers, acquisitions, and other fundamental transactions, amendments to the Certificate of Incorporation and Bylaws, and all other matters requiring a stockholder vote. This concentrated voting power will persist regardless of the amount of equity sold in this Offering, in subsequent Series B or later financing rounds, or in any employee equity incentive program.

PRACTICAL CONSEQUENCES FOR SERIES A INVESTORS: Investors in the Series A Preferred Stock should understand that they will have minimal ability to influence the Company's governance, strategic direction, or management through the stockholder voting process. The Founder can, acting alone and without the consent of any other stockholder: (i) elect all Board members except the Series A Director; (ii) remove and replace Board members except the Series A Director; (iii) block any proposed merger, acquisition, or sale of the Company that he does not support; (iv) approve or reject any fundamental corporate transaction; and (v) control the outcome of any stockholder vote on which Class A and Class B shareholders vote together as a single class. Series A investors retain only the separate class voting rights specifically enumerated in the Stockholders Agreement and described herein, including the right to elect one Series A Director and the right to vote as a separate class on matters that specifically and adversely affect the rights of Series A shares.

IRREVOCABLE CHAIRMAN: In addition to controlling voting outcomes, Milton L Brown Sr.M.D., PhD. is irrevocably designated as Chairman of the Board of Directors for so long as he holds any shares of Class B Common Stock. This designation cannot be removed or modified by any vote of the Board or stockholders without the Founder's own written consent. Investors cannot, through

any combination of stockholder voting or Board action, remove the Founder from the Chairman position against his will. This structure means that even if a majority of total equity (by economic interest) were held by outside investors, the Founder would retain the Chairman role and Board control through his super voting shares and irrevocable designation.

DUAL-CLASS SUNSET: The Class B Super Voting Shares will automatically convert to Class A Common Stock (1 vote per share) upon: (i) the death or permanent incapacity of Milton L Brown Sr.M.D., PhD. (as determined by two licensed physicians); (ii) a Qualified IPO if the underwriter requires a single-class share structure as a condition of the offering; or (iii) the voluntary written election of the Founder to convert his Class B shares. Upon conversion, all shares will carry equal voting rights and the irrevocable Chairman designation will terminate (though the Founder may of course continue to serve as Chairman by normal Board election). No other event — including sale of equity by the Founder in amounts up to all of his Class A Common Stock — will trigger conversion of the Class B shares so long as he retains any Class B shares. The dual-class structure is a standard feature of many technology and pharmaceutical founder-led companies and is designed to protect the Company's long-term scientific vision and government relationship strategy from short-term investor pressure.

The Company is highly dependent on a small number of key personnel.

The Company's success is substantially dependent on the contributions of Milton L Brown Sr.M.D., PhD., Damian V. Dolland, and a small number of other key personnel. Dr. Brown's scientific relationships with AFRRI, Georgetown University, and FDA regulatory experts are foundational to the Company's development program and cannot be easily replaced. The loss of any key person's services — due to illness, disability, death, departure, or personal reasons — could have a material adverse effect on the Company's ability to advance RadShield™'s development, maintain its institutional relationships, and execute its government contracting strategy. The Company does not currently carry key person life insurance on all members of its leadership team.

Management has limited experience managing a clinical-stage pharmaceutical company through FDA approval.

While the Company's leadership team has extensive academic, finance, and advisory experience, the management team has not previously led a pharmaceutical company through the complete FDA approval process for a novel drug product, including GLP toxicology studies, IND submission, Phase 1 and Phase 2 clinical trials, and BLA/NDA filing under the Animal Rule. The challenges of managing a growing clinical-stage organization, coordinating multiple CROs and CMOs, navigating FDA review processes, and simultaneously executing government procurement strategies are substantial. There can be no assurance that the current management team will successfully navigate all of these challenges.

We have limited capital market access and may require additional financing beyond this Offering.

The Company has limited access to capital markets to raise additional capital. Even if this Offering is fully subscribed, we may require additional financing for Phase 2 clinical trials, commercial manufacturing scale-up, regulatory filing fees, international regulatory approvals, and working capital beyond the projected timeline. Additional financing may be unavailable, unavailable on acceptable terms, or available only on terms dilutive to current investors. If the Company cannot raise adequate additional funds when needed, it may be required to delay, scale back, or abandon

its development program, which would have a material adverse effect on the Company and investors' investment.

Information asymmetry — as a private company, disclosure obligations are limited.

As a private company, Trocar Pharma is subject to significantly less stringent public disclosure requirements than SEC-reporting issuers. While the Company has provided quarterly financial reporting and board information rights to Series A investors as part of the Offering terms, investors cannot rely on the level of disclosure, audit rigor, or regulatory oversight that applies to publicly traded companies. There is an inherent information asymmetry between company management and outside investors in a private company context, and investors must rely primarily on the representations and information in this Memorandum and subsequent investor communications.

RISKS RELATED TO THE OFFERING AND SECURITIES

The Units are illiquid — there is no public market and none is expected.

The Units are not registered under the Securities Act of 1933 and are subject to significant restrictions on transfer and resale. There is no public market for the Units, no market is expected to develop, and investors should be prepared to hold their investment for an indefinite period. Investors who need liquidity should not invest in the Units. Transfers of Units require Company consent, compliance with applicable securities laws, delivery of a legal opinion regarding exemption from registration, and satisfaction of other conditions specified in the Stockholders Agreement. Even in a successful scenario where the Company achieves FDA approval and government procurement contracts, the Units may remain illiquid until a qualified IPO or strategic acquisition occurs, which may take a decade or more from the date of this Memorandum, or may never occur.

This Offering is on a best-efforts basis with no minimum; the Company may raise less than \$40 million.

This Offering is made on a "best efforts" basis with no minimum offering amount required prior to the Company's use of proceeds. There is no guarantee that the Company will raise the Maximum Offering of \$40,000,000. If the Offering is not fully subscribed, the Company may have less capital than projected to fund its development activities, potentially requiring the Company to delay or cancel GLP toxicology studies, Phase 1 clinical trials, or Phase 2 activities. Partial funding of the development program creates increased uncertainty about the Company's ability to reach FDA approval and commercial revenue.

The liquidation preference does not guarantee return of capital.

While Series A investors have a 1.5x liquidation preference over common stockholders in the event of a liquidation, dissolution, or winding up of the Company, this preference is only meaningful if the Company has assets sufficient to satisfy it. In a scenario where the Company is dissolved without achieving FDA approval or significant commercial revenue, the Company's assets may consist primarily of its Georgetown license rights (which have value only if assignable and the underlying IP remains valid) and limited cash. There is no guarantee that these assets would be sufficient to return 1.5x or even 1.0x to Series A investors.

Dilution — future financing rounds will reduce your ownership percentage.

The Company intends to raise additional capital in future financing rounds, including a Series B round for commercial manufacturing scale-up following FDA approval. Each future issuance of

equity or convertible securities (including options, warrants, or convertible notes) will dilute the ownership percentage of Series A investors. While Series A investors have anti-dilution protection (weighted average, broad-based) and pro-rata participation rights in future rounds, these protections are subject to exceptions (including for employee equity incentive plan issuances and certain strategic transactions) and may not fully protect investors from economic dilution in all circumstances.

GENERAL, MACROECONOMIC, AND GEOPOLITICAL RISKS

Changes in the geopolitical environment could reduce government investment in radiation MCMs.

While the Company believes that the current elevated geopolitical threat environment creates urgency for government investment in radiation MCMs, geopolitical conditions may change. A diplomatic resolution to the Russia-Ukraine conflict, arms control agreements, or a general de-escalation of nuclear tensions could reduce the perceived urgency of radiation MCM procurement and shift government budgetary priorities away from CBRN preparedness. The Company's financial projections are highly sensitive to the level of government investment in radiation preparedness, and any meaningful reduction in that investment would materially adversely affect projected revenues.

Adverse changes in law, regulation, or government policy could harm the Company.

Changes in federal law or regulation, including changes to the Project BioShield Act, Pandemic and All-Hazards Preparedness Act (PAHPA), FDA's Animal Rule regulatory framework, government contracting regulations, or the appropriations structure for BARDA and SNS programs, could adversely affect the Company's ability to obtain regulatory approval, secure government contracts, or achieve commercialization. Political changes following future elections may result in significant shifts in government spending priorities, regulatory philosophy, and MCM program structures that the Company cannot predict.

General economic conditions and capital market disruptions could impair the Company.

Adverse changes in general economic conditions, including recession, severe inflation, rising interest rates, credit market disruptions, or financial market volatility, could increase the Company's cost of capital, reduce the availability of additional financing, impair government procurement budgets, or otherwise adversely affect the Company's financial condition and development timeline. In particular, if capital market conditions deteriorate significantly, the Company may be unable to raise a Series B or subsequent financing round on acceptable terms.

THE FOREGOING RISK FACTORS DO NOT PURPORT TO BE A COMPLETE EXPLANATION OF ALL RISKS INVOLVED IN AN INVESTMENT IN THE UNITS. THERE MAY BE ADDITIONAL RISKS OF WHICH THE COMPANY IS NOT CURRENTLY AWARE OR THAT MANAGEMENT CURRENTLY DEEMS IMMATERIAL. INVESTORS SHOULD CAREFULLY CONSIDER ALL INFORMATION IN THIS MEMORANDUM AND CONSULT WITH THEIR OWN INDEPENDENT ADVISORS BEFORE MAKING AN INVESTMENT DECISION.

-INTENTIONALLY LEFT BLANK-

TERMS OF THE OFFERING

The Securities

The Company is offering up to 400 Units of Series A Convertible Preferred Stock (the "Series A Shares" or "Units") at a price of \$100,000 per Unit. Upon full subscription of the Maximum Offering Amount, the Series A Shares will represent thirty percent (30%) of the fully diluted capitalization of the Company immediately following the final Closing (the "Offering Equity Percentage"). This implies a pre-money valuation of approximately \$93,333,333 and a post-money valuation of approximately \$133,333,333 (the "Offering Valuation"). Each Unit (\$100,000) represents approximately 0.075% of the Company's fully diluted equity at the Offering Valuation. The Units represent Series A Convertible Preferred Stock of Trocar Pharma, Inc., a Delaware corporation. The Units are being offered pursuant to the exemption from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended, and Rule 506(b) of Regulation D. The Company has authorized the issuance of the Series A Shares and has taken all requisite corporate action required to authorize this Offering.

Offering Amount and Offering Period

The Maximum Offering Amount is \$40,000,000 (four hundred Units at \$100,000 per Unit). The Offering is being made on a "best efforts" basis with no minimum offering amount required. The Company shall receive and begin to use proceeds from this Offering on a rolling basis as subscriptions are received and accepted. The minimum investment per investor is \$100,000 (one Unit), which minimum may be reduced at the Company's sole and absolute discretion in exceptional circumstances, provided that no subscription of less than \$50,000 will be accepted in any circumstances.

The Offering Period commences on the date of this Memorandum and terminates on the earliest to occur of: (i) the sale of the Maximum Offering Amount; (ii) twelve (12) months from the date of this Memorandum; or (iii) the date the Company elects to terminate the Offering. The Company reserves the right to extend the Offering Period for one or more additional periods of up to six months each. The Company also reserves the right to increase or decrease the Maximum Offering Amount, amend the terms of the Offering, or terminate the Offering at any time in its sole discretion with written notice to then-current subscribers. No investor shall have any cause of action against the Company for termination of the Offering prior to the scheduled termination date.

Subscription Procedure

To subscribe for Units, prospective investors must: (i) review this Memorandum in its entirety, including all exhibits; (ii) complete, execute, and deliver the Subscription Agreement (Exhibit B), including the Accredited Investor Questionnaire; (iii) wire transfer the subscription amount to the Company's designated account as specified in the Subscription Agreement; and (iv) provide such additional documentation as the Company may request to verify accredited investor status, identity, and compliance with applicable anti-money laundering regulations.

All subscription documents and payments should be submitted to: Trocar Pharma, Inc., Attention: Investor Relations, c/o TriUnity Capital Ventures, LLC, 6345 S. Pecos Road, Suite 109, Las Vegas, NV 89120. Contact: Derrick Phelps | derrick@bankabledeals.com | 702-862-0634. All subscriptions are subject to review and acceptance by the Company in its sole discretion. The Company may

accept or reject any subscription in whole or in part for any reason or for no reason. Rejected subscriptions will be returned promptly, without interest.

Acceptance, Closing, and Use of Proceeds

The Offering has a rolling closing structure. The Company may conduct one or more Closings during the Offering Period on dates determined by the Company in its sole discretion. Following each Closing, the Company will issue the applicable Series A Shares to accepted subscribers and the proceeds will be released to the Company for use in accordance with the Use of Proceeds described herein. There is no minimum amount required to be subscribed prior to any Closing, and the Company may conduct a Closing with any amount of subscriptions it determines appropriate. Subscribers whose subscriptions are accepted at a Closing will receive a fully executed Stockholders Agreement, an updated capitalization table, and any other documentation required to evidence their ownership of the Series A Shares.

No Escrow Arrangement

This Offering does not utilize an escrow arrangement. Subscription funds will be transferred directly to the Company's operating account upon acceptance of each subscription. Subscribers should be aware that, once submitted and accepted, subscription funds will not be held in escrow and will not be refundable except in the Company's sole and absolute discretion or as required by applicable law. Subscribers should not submit funds unless they are fully prepared to commit to the investment.

DESCRIPTION OF SERIES A PREFERRED STOCK

Authorized Capital

The Company has authorized three classes of capital stock under its amended and restated Certificate of Incorporation: (i) Class A Common Stock; (ii) Class B Common Stock; and (iii) Series A Convertible Preferred Stock. The Class A Common Stock is entitled to one (1) vote per share on all matters submitted to a vote of stockholders. The Class B Common Stock — held exclusively by Milton Brown Sr., PhD (the "Founder") — is entitled to ten (10) votes per share on all matters submitted to a vote of stockholders (the "Super Voting Shares"). The Class A and Class B Common Stock are identical in all other economic respects, including rights to dividends and distributions upon liquidation, and both classes convert automatically to a single class of common stock upon a Qualified IPO or at the election of the Founder. The Series A Convertible Preferred Stock is offered pursuant to this Memorandum and has the rights, preferences, and privileges described herein. The specific terms of each class of capital stock are set forth in the amended and restated Certificate of Incorporation and the Stockholders Agreement (Exhibit A). In the event of any conflict between the description herein and the operative documents, the operative documents shall govern.

Liquidation Preference

In the event of any liquidation, dissolution, or winding up of the Company, whether voluntary or involuntary, or in the event of a Deemed Liquidation Event (as defined in the Stockholders Agreement, including a merger, acquisition, or sale of substantially all of the Company's assets), the holders of Series A Preferred Stock shall be entitled to receive, before and in preference to any distribution to holders of common stock, an amount per share equal to 1.5 times the original purchase price paid for each Series A Share (\$150,000 per Unit), plus any declared but unpaid dividends (the "Liquidation Preference"). If the assets available for distribution to stockholders are insufficient to pay the full Liquidation Preference to all holders of Series A Preferred Stock, the available assets shall be distributed ratably among the holders of Series A Preferred Stock in proportion to their respective Liquidation Preferences.

Following payment of the full Liquidation Preference to Series A holders, any remaining assets available for distribution shall be distributed to holders of common stock (and any other classes of stock junior to the Series A Preferred Stock) in proportion to their respective shareholdings. The Series A Preferred Stock does not participate with common stock in distributions beyond the Liquidation Preference (i.e., the Series A is non-participating preferred).

Conversion Rights

Each share of Series A Preferred Stock is convertible into one share of common stock (subject to adjustment for stock splits, dividends, combinations, recapitalizations, and anti-dilution adjustments) at the option of the holder at any time. In addition, all outstanding shares of Series A Preferred Stock shall automatically convert into common stock upon: (i) the closing of a Qualified IPO, defined as an underwritten public offering of the Company's common stock on a national securities exchange with gross proceeds to the Company of at least \$75,000,000 at a per-share price at least 3x the Series A per-share purchase price; (ii) the closing of a Strategic Acquisition or Merger in which the per-share consideration received by Series A holders is at least 3x the Series

A per-share purchase price; or (iii) the election of holders of a majority of the outstanding shares of Series A Preferred Stock (voting as a separate class).

Voting Rights

CLASS B SUPER VOTING RIGHTS — FOUNDER CONTROL: Milton L. Brown, M.D., Ph.D holds all issued and outstanding shares of Class B Common Stock. Each share of Class B Common Stock is entitled to ten (10) votes per share on every matter submitted to a vote of the stockholders of the Company, including the election of directors, amendments to the Certificate of Incorporation or Bylaws, approval of mergers and acquisitions, and all other corporate actions requiring a stockholder vote. Each share of Class A Common Stock (including shares issuable upon conversion of the Series A Preferred Stock) is entitled to one (1) vote per share. As a result of this dual-class voting structure, PhDMilton L. Brown, M.D., Ph.D will retain voting control over the Company on all stockholder matters for so long as he holds any shares of Class B Common Stock, regardless of the total number of shares sold in this Offering or in subsequent financing rounds. Investors in the Series A Preferred Stock (which converts to Class A Common Stock) should understand that they will have limited ability to influence corporate governance matters through the stockholder voting process. See "Risk Factors — Founder Control and Dual-Class Voting Structure" for a full description of the risks associated with this structure.

SERIES A PREFERRED STOCK VOTING RIGHTS: Holders of Series A Preferred Stock shall be entitled to vote on all matters presented to stockholders of the Company, voting together with the Class A and Class B Common stockholders as a single class on an as-converted basis (i.e., each Series A Share counts as one vote, equivalent to one Class A Common Share on conversion). In addition, the affirmative vote of the holders of a majority of the outstanding shares of Series A Preferred Stock, voting as a separate class, shall be required for: any amendment of the Company's Certificate of Incorporation or Bylaws that adversely affects the rights, preferences, or privileges of the Series A Preferred Stock specifically; any increase in the authorized number of shares of Series A Preferred Stock; any issuance of equity securities senior to or pari passu with the Series A Preferred Stock in liquidation rights; and such other matters as are specified in the Stockholders Agreement as requiring separate Series A class approval. Notwithstanding the foregoing separate class voting rights of Series A holders, the Founder's Class B Super Voting Shares will control the outcome of any matter voted on by all stockholders as a single class as long as the Founder retains his Class B shares.

Anti-Dilution Provisions

The Series A Preferred Stock carries weighted-average anti-dilution protection on a broad-based basis. In the event the Company issues additional shares of common stock or securities convertible into common stock at a price per share below the then-effective Series A conversion price (a "Down Round Issuance"), the Series A conversion price shall be adjusted downward using the broad-based weighted-average formula: $\text{New Conversion Price} = \text{Old Conversion Price} \times [(A + B) / (A + C)]$, where A is the total number of shares outstanding on a fully-diluted basis immediately prior to the Down Round Issuance, B is the number of shares that the total consideration received would purchase at the Old Conversion Price, and C is the actual number of shares issued in the Down Round Issuance. The anti-dilution adjustment does not apply to Excluded Issuances, including equity incentive plan issuances approved by the Board, conversions of outstanding convertible securities, and securities issued in bona fide strategic transactions.

Dividend Rights

Holders of Series A Preferred Stock are entitled to receive dividends, if and when declared by the Board of Directors, at the same rate and on the same basis as dividends paid to holders of common stock on an as-converted basis. No dividends shall be paid on common stock unless and until all accrued but unpaid dividends on the Series A Preferred Stock have been paid in full. The Company does not anticipate declaring any dividends during the foreseeable development period. Any future declaration and payment of dividends will be at the discretion of the Board of Directors and will depend on the Company's financial condition, operating results, capital requirements, and other factors.

Restrictions on Transfer

The Series A Shares have not been registered under the Securities Act and may not be transferred, sold, assigned, pledged, hypothecated, or otherwise disposed of without: (i) registration under the Securities Act and applicable state securities laws; or (ii) an opinion of counsel satisfactory to the Company that such transfer is exempt from registration requirements. In addition, transfers are subject to the right of first refusal and co-sale rights held by the Company and other shareholders under the Stockholders Agreement. Each certificate or book-entry representing Series A Shares shall bear an appropriate legend reflecting these transfer restrictions.

Book-Entry Ownership

The Company, at its election, may issue the Series A Shares in uncertificated, book-entry form through a transfer agent to be engaged prior to or at Closing. Investors will receive a confirmation of their shareholding from the Company's transfer agent or from the Company's corporate records in lieu of physical share certificates. Uncertificated shares have the same legal effect as certificated shares and are subject to all of the same transfer restrictions.

SUMMARY OF STOCKHOLDERS AGREEMENT

The following is a summary of certain key provisions of the Stockholders Agreement to be entered into among the Company, the founding shareholders, and the Series A investors at Closing. This summary is not complete and is qualified in its entirety by the full text of the Stockholders Agreement, which is attached as Exhibit A. Investors should review the full Stockholders Agreement carefully with their legal advisors prior to investing.

Board Composition and Governance

Immediately following the initial Closing, and continuing for so long as Milton L. Brown, M.D., Ph.D holds any shares of Class B Common Stock, the Company's Board of Directors shall consist of five (5) members. The Founder shall designate four (4) directors at all times (maintaining supermajority Board control), and the Series A investors, voting as a separate class, shall designate one (1) director (the "Series A Director"). No provision of the Stockholders Agreement, Certificate of Incorporation, Bylaws, or any resolution of the Board of Directors or stockholders shall have the effect of removing, limiting, or diminishing the Founder's right to designate four (4) Board seats at all times while he holds any Class B Common Stock.

Irrevocable Chairman Designation — PhDMilton L. Brown, M.D., Ph.D.

IRREVOCABLE CHAIRMAN DESIGNATION: PhDMilton L. Brown, M.D., Ph.D is hereby irrevocably designated as Chairman of the Board of Directors of Trocar Pharma, Inc. for so long as he holds any shares of Class B Common Stock or is otherwise a stockholder of the Company. This designation is permanent and irrevocable and cannot be modified, suspended, or terminated by: (i) any vote of the Board of Directors; (ii) any vote of the stockholders, including a majority or supermajority vote; (iii) any amendment to the Certificate of Incorporation or Bylaws, except with the Founder's own written consent; (iv) any action by the Series A Director or Series A investors; (v) any court order or arbitration award, except in the context of a final judicial determination of incapacity, fraud, or criminal conduct involving the Founder personally. The Founder may voluntarily resign as Chairman at any time by providing written notice to the Board. In the event of the Founder's death, permanent incapacity as determined by two licensed physicians, or voluntary resignation, the right to designate the successor Chairman shall vest in the Founder's designated successor or, if no successor is designated, in the Board by majority vote. The irrevocable nature of this Chairman designation is an essential term of the Offering and a material inducement to the Founder's agreement to permit this Offering to proceed. Investors are deemed to have acknowledged and accepted this designation by executing the Subscription Agreement.

CHAIRMAN AUTHORITY: As Chairman of the Board, PhDMilton L. Brown, M.D., Ph.D shall have the following authorities and responsibilities, in addition to all authorities vested in a Chairman under Delaware law and the Company's Bylaws: (i) the right to preside over all meetings of the Board of Directors and all meetings of the stockholders; (ii) the right to set the agenda for all Board meetings, subject to the right of any director to add items to the agenda; (iii) the right to serve as the Company's primary scientific and strategic spokesperson in all government procurement, regulatory, and investor relations contexts; (iv) the casting vote in the event of a Board deadlock on any matter (other than matters where the Chairman has a material personal conflict of interest as determined by independent legal counsel); and (v) all additional authorities customarily vested in the Chairman of a Delaware corporation pursuant to the Company's Bylaws.

The initial Series A Director shall be designated by the investors who collectively hold the largest number of Series A Shares at the initial Closing, subject to the holder's execution of appropriate director questionnaires and compliance with applicable law. Successors to any Series A Director vacancy shall be designated by a majority vote of Series A holders. The Company may increase or decrease the size of the Board with the consent of the majority of Series A holders, provided that the Series A Director seat and Board representation ratio are maintained.

Observer Rights

Any holder of at least 50 Units (representing \$5,000,000 or more in invested capital) shall have the right to designate one non-voting Board Observer. The Board Observer shall receive all Board materials, meeting notices, and consents circulated to directors at the same time as they are provided to directors, and shall be entitled to attend all Board meetings (including by telephone or video conference) in a non-voting, observational capacity. The Board Observer may be excluded from portions of Board meetings that the Chairman or General Counsel determines in good faith involve matters subject to attorney-client privilege or that would create a direct conflict of interest for the Observer.

Information and Reporting Rights

The Company shall provide all Series A investors with the following financial and operational reporting, for so long as such investor holds at least one Unit:

- Quarterly Financial Statements: Unaudited balance sheet, income statement, and cash flow statement for each fiscal quarter, delivered within 45 days after the end of each quarter;
- Annual Financial Statements: Annual financial statements (audited if the Company obtains an audit; otherwise unaudited) for each fiscal year, delivered within 120 days after the end of the fiscal year;
- Annual Budget: The Company's annual operating budget and development plan for the upcoming fiscal year, delivered at least 30 days before the end of each fiscal year;
- Development Milestones Update: Quarterly narrative report on clinical development progress, regulatory affairs, and government contracting activities, delivered with the quarterly financial statements;
- Use of Proceeds Report: Quarterly reconciliation of actual versus budgeted use of proceeds, delivered with the quarterly financial statements;
- Material Event Notice: Prompt written notice of any material adverse event, including clinical trial failures, regulatory setbacks, government contract developments, key personnel changes, and material litigation.

All financial and operational information provided to investors shall be treated as confidential by the investors and their representatives, subject to customary exceptions for legal disclosure obligations and review by investment advisors under appropriate confidentiality agreements.

Reserved Matters — Series A Consent Required

Without the prior written consent of the holders of a majority of outstanding Series A Shares (voting as a separate class), the Company shall not take, or permit any subsidiary to take, any of the following actions:

- Amend, restate, or modify the Company's Certificate of Incorporation, Bylaws, or the Stockholders Agreement in any manner that adversely affects the rights, preferences, or privileges of the Series A Preferred Stock;
- Issue any equity securities (including common stock, preferred stock, warrants, or convertible instruments) that are senior to or pari passu with the Series A Preferred Stock in liquidation, dividend, or other rights;
- Issue any equity securities in excess of \$1,000,000 in any single transaction or series of related transactions, except pursuant to the employee equity incentive plan approved by the Board;
- Incur any indebtedness for borrowed money in excess of \$1,000,000 in any single transaction or series of related transactions outside the ordinary course of business;
- Sell, transfer, lease, license, or otherwise dispose of material assets of the Company (including the Georgetown License Agreement) outside the ordinary course of business;
- Enter into any related-party transaction between the Company and any director, officer, significant shareholder, or their affiliates, except for transactions on arm's-length terms that are approved by disinterested members of the Board;
- Reallocate proceeds from the Use of Proceeds Plan by more than 15% of any single line item;
- Make or approve any acquisition of another business, whether through stock purchase, asset purchase, or merger;
- Remove or replace the Chief Executive Officer or Chief Financial Officer without cause;
- Approve or authorize any liquidation, dissolution, winding up, or bankruptcy filing of the Company.

Pre-Emptive Rights and Anti-Dilution

Each Series A investor shall have the right, but not the obligation, to purchase their pro-rata share (calculated on a fully-diluted basis) of any future issuances of equity securities by the Company ("New Securities"), in order to maintain their percentage ownership interest (the "Pre-Emptive Right"). The Company shall provide written notice of any proposed issuance at least 15 business days in advance, specifying the type, quantity, terms, and price of the New Securities. Each Series A investor shall have 10 business days to elect to exercise their Pre-Emptive Right. Pre-Emptive Rights do not apply to Excluded Issuances including employee equity incentive plan issuances approved by the Board, conversions of outstanding convertible securities, securities issued in connection with Board-approved mergers or acquisitions, and securities issued in bona fide debt financings.

Drag-Along and Tag-Along Provisions

Drag-Along Rights: If the holders of a majority of the outstanding shares of common stock (on an as-converted basis, including Series A Preferred Stock) approve a Deemed Liquidation Event or other sale transaction, each Series A investor shall be required to vote in favor of such transaction, tender their shares, and take all other required actions to consummate such transaction, provided that the consideration received by Series A holders equals or exceeds the Liquidation Preference.

Tag-Along Rights: If any founding shareholder proposes to transfer shares of common stock to a third party in a transaction representing more than 5% of the Company's fully-diluted shares outstanding, each Series A investor shall have the right to participate in such transfer on the same terms and conditions, on a pro-rata basis. The transferring founding shareholder shall provide Series A investors with at least 10 business days' written notice before consummating any such transfer.

CERTAIN FEDERAL INCOME TAX CONSIDERATIONS

THE FOLLOWING IS A GENERAL DISCUSSION OF CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS RELEVANT TO AN INVESTMENT IN THE UNITS. THIS DISCUSSION IS BASED ON THE INTERNAL REVENUE CODE OF 1986, AS AMENDED (THE "CODE"), TREASURY REGULATIONS PROMULGATED THEREUNDER, IRS RULINGS AND PRONOUNCEMENTS, AND JUDICIAL DECISIONS AS OF THE DATE OF THIS MEMORANDUM, ALL OF WHICH ARE SUBJECT TO CHANGE, POTENTIALLY WITH RETROACTIVE EFFECT. THIS DISCUSSION DOES NOT PURPORT TO BE A COMPLETE ANALYSIS OF ALL POTENTIAL FEDERAL INCOME TAX CONSEQUENCES OF AN INVESTMENT IN THE UNITS, AND DOES NOT ADDRESS STATE, LOCAL, FOREIGN, ESTATE, ALTERNATIVE MINIMUM TAX, NET INVESTMENT INCOME TAX, OR OTHER TAX CONSIDERATIONS. NO RULINGS HAVE BEEN SOUGHT FROM THE IRS WITH RESPECT TO ANY TAX MATTERS DISCUSSED HEREIN. EACH PROSPECTIVE INVESTOR IS STRONGLY URGED TO CONSULT WITH QUALIFIED INDEPENDENT TAX COUNSEL REGARDING THE SPECIFIC TAX CONSEQUENCES OF AN INVESTMENT IN THE UNITS BASED ON THEIR PARTICULAR CIRCUMSTANCES.

Classification of the Company

Trocar Pharma, Inc. is organized as a Delaware corporation and will be treated as a corporation for U.S. federal income tax purposes. As such, the Company is a separate taxable entity from its shareholders, and shareholders are not taxed currently on the Company's income. Shareholders will generally be subject to tax only when they receive dividends from the Company or recognize gain on the sale or other disposition of their shares.

Dividends

If the Company makes distributions of cash or other property to holders of Series A Preferred Stock, such distributions will be treated as dividends to the extent they are paid out of the Company's current or accumulated earnings and profits (as determined for federal income tax purposes). Qualified dividend income received by individual shareholders from domestic corporations is generally taxed at preferential long-term capital gains tax rates, provided applicable holding period requirements are met. Corporate shareholders may be eligible for the dividends-received deduction (generally 50% to 100% of qualifying dividends) subject to applicable limitations. The Company does not anticipate making any distributions in the foreseeable future given its clinical-stage development status and expected reinvestment of all capital into operations.

Sale or Exchange of Units

Upon a taxable sale, exchange, or other disposition of Units, a shareholder will generally recognize gain or loss equal to the difference between: (i) the amount realized (generally, the cash plus the fair market value of any property received); and (ii) the shareholder's adjusted tax basis in the Units sold. A shareholder's initial tax basis in the Units is generally the amount paid for them (\$100,000 per Unit), subject to adjustments for stock splits, dividends, and other events. Gain or loss recognized on a sale of Units held for more than twelve months would generally be characterized as long-term capital gain or loss, which is currently taxed at preferential rates for individual shareholders. Gain or loss on Units held for twelve months or less would be characterized as short-term capital gain or loss, taxed at ordinary income rates.

Qualified Small Business Stock (Section 1202)

Investors may wish to evaluate whether the Units might qualify as "qualified small business stock" (QSBS) under Section 1202 of the Code, which provides for a potential exclusion of up to 100% of gain from the sale of QSBS held for more than five years by non-corporate taxpayers. Among other requirements, Section 1202 QSBS must be: (i) original issue stock acquired from a domestic C corporation (the Company qualifies as a domestic C corporation); (ii) issued to a non-corporate taxpayer (i.e., not purchased by a corporation); (iii) acquired by the taxpayer in exchange for cash, other property, or services; (iv) stock of a corporation that meets the "active business" requirements and whose aggregate gross assets did not exceed \$50 million at the time of issuance; and (v) held for more than five years. THE COMPANY MAKES NO REPRESENTATION THAT THE UNITS QUALIFY AS QSBS, AND INVESTORS MUST CONSULT THEIR OWN TAX ADVISORS TO DETERMINE WHETHER THEY MAY QUALIFY FOR THIS EXCLUSION BASED ON THEIR PARTICULAR CIRCUMSTANCES AND ALL APPLICABLE REQUIREMENTS.

Tax-Exempt Investors

Tax-exempt investors (including pension funds, endowments, and individual retirement accounts) should consult with their tax advisors regarding the potential for "unrelated business taxable income" (UBTI) arising from an investment in the Units, particularly if the investment is financed with "acquisition indebtedness" under Section 514 of the Code. Generally, income from debt-financed property is treated as UBTI to the extent of the "debt-financed ratio," even if such income would otherwise be exempt.

Foreign Investors

Non-U.S. investors (individuals who are not U.S. citizens or residents, and foreign corporations, trusts, and estates) should consult with their own tax advisors regarding the U.S. federal income tax treatment of their investment in the Units, including the potential for withholding tax on dividends (generally at a rate of 30% or such lower rate as may be available under an applicable tax treaty), reporting obligations, and treatment of capital gains. Non-U.S. investors may be subject to the Foreign Investment in Real Property Tax Act (FIRPTA), estate and gift taxes, and other rules that are not addressed in this general discussion.

Backup Withholding and Information Reporting

Investors who are U.S. persons may be subject to backup withholding (currently at a rate of 24%) on payments made with respect to the Units, unless the investor provides the Company with a properly completed IRS Form W-9. Foreign investors may be required to provide IRS Form W-8BEN, W-8BEN-E, or another applicable W-8 form to establish their entitlement to reduced withholding or an exemption from backup withholding. The Company will be required to report certain payments made to U.S. investors on IRS Form 1099 and to foreign investors on IRS Form 1042-S, as applicable.

CONFLICTS OF INTEREST

The following describes certain potential conflicts of interest that exist or may arise in connection with the Offering. These conflicts may not be exhaustive, and investors should carefully evaluate these relationships in assessing the Offering.

TriUnity Capital Ventures, LLC — Capital Consultant

TriUnity Capital Ventures, LLC, a Wyoming limited liability company, is engaged by the Company as Capital Consultant and Sponsoring Fund for this Offering. TriUnity is not a registered broker-dealer or FINRA-registered investment adviser. Certain principals of TriUnity may be investors in or affiliates of the Company, may be investors in this Offering through TriUnity's own fund, or may hold equity interests in the Company. These relationships mean that TriUnity has a financial interest in the success of this Offering that is separate from and potentially in conflict with the interests of third-party investors. Investors should be aware that TriUnity's promotional activities on behalf of the Company may be influenced by these financial relationships.

Related-Party Transactions

Certain officers, directors, and affiliates of the Company may from time to time enter into transactions with the Company, including employment agreements, consulting arrangements, expense reimbursements, and similar relationships. All material related-party transactions are subject to approval by the disinterested members of the Board of Directors and are required to be conducted on arm's-length terms. The Stockholders Agreement's Reserved Matters provisions require Series A consent for related-party transactions with officers, directors, or significant shareholders. A full disclosure of all existing material related-party transactions will be provided in the Stockholders Agreement and accompanying disclosure schedules.

Georgetown University License

The Company's Chief Executive Officer, PhD Milton L. Brown, M.D., Ph.D, has a current academic affiliation with Old Dominion University, including as a member of the faculty or research community. In addition, his academic past relationship with Georgetown University predates the Exclusive License Agreement and was instrumental in the Company's ability to obtain the license. While the Company does not believe that Dr. Brown's Georgetown relationship creates a direct conflict of interest with the Company, investors should be aware that his dual roles as a Company executive and a Georgetown affiliate may in certain circumstances present issues of divided loyalty or conflicting obligations.

REGULATORY AND OTHER MATTERS

Securities Law Compliance

This Offering is being made in reliance upon the exemption from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended, and Rule 506(b) of Regulation D thereunder. Under Rule 506(b), the Company may offer securities to an unlimited number of accredited investors without registration, provided that: (i) the Company does not engage in general solicitation or general advertising in connection with the Offering; (ii) all investors qualify as accredited investors or (with respect to a maximum of 35 purchasers) as sophisticated but non-accredited investors who have or are represented by persons who have such knowledge and experience in financial and business matters that they are capable of evaluating the merits and risks of the investment; and (iii) the Company files Form D with the SEC within 15 calendar days after the first sale in the Offering.

The Company intends to comply with all applicable federal and state securities laws in connection with this Offering, including filing Form D with the SEC and making applicable state blue sky filings in each jurisdiction where Units are sold. Neither the SEC nor any state securities commission has reviewed or approved this Offering or this Memorandum.

No General Solicitation

This Memorandum is being distributed on a confidential basis only to persons who have been identified through pre-existing, substantive relationships as potential accredited investors. This Memorandum does not constitute and is not intended to constitute a general solicitation or general advertising of the Units. Recipients should not forward this Memorandum to other persons without the Company's prior written consent.

Anti-Money Laundering Compliance

The Company is committed to compliance with all applicable anti-money laundering (AML) laws and regulations, including the Bank Secrecy Act, the USA PATRIOT Act, and applicable OFAC regulations. The Company reserves the right to require investors to provide identity verification documents, source of funds certifications, and other information necessary to satisfy the Company's AML compliance obligations. The Company will not accept subscriptions from persons or entities on OFAC's Specially Designated Nationals list or from jurisdictions subject to OFAC sanctions.

No Assurance of Accuracy; No Updates

While the Company believes the information in this Memorandum is accurate as of the date hereof, neither the Company, TriUnity Capital Ventures, LLC, nor any of their respective officers, directors, employees, agents, or affiliates makes any representation or warranty, express or implied, as to the accuracy or completeness of the information contained herein. No representation or warranty is made with respect to the continued accuracy of any information contained herein after the date of this Memorandum. The Company undertakes no obligation to update this Memorandum for events occurring after the date of this Memorandum, except as required by applicable securities laws.

-INTENTIONALLY LEFT BLANK-

HOW TO PARTICIPATE — SUBSCRIPTION INSTRUCTIONS

To subscribe for Units of Series A Convertible Preferred Stock in Trocar Pharma, Inc., prospective investors should complete the following steps:

- Step 1 — Read this Memorandum: Review this Confidential Private Placement Memorandum in its entirety, including all exhibits. Investors are encouraged to share this Memorandum with their legal, tax, and financial advisors.
- Step 2 — Confirm Accredited Investor Status: Confirm that you qualify as an accredited investor under Rule 501(a) of Regulation D and meet all additional suitability requirements described herein.
- Step 3 — Complete Subscription Documents: Complete, execute, and date the Subscription Agreement (Exhibit B), including the Accredited Investor Questionnaire. Provide accurate and complete information about your financial qualifications, identity, and investment experience.
- Step 4 — Submit Subscription Documents: Return all completed, signed subscription documents to the Company's Capital Consultant: TriUnity Capital Ventures, LLC, 6345 S. Pecos Road, Suite 109, Las Vegas, NV 89120. Attention: Derrick Phelps. Email: derrick@bankabledeals.com. Phone: 702-862-0634.
- Step 5 — Wire Transfer Funds: Upon confirmation that your subscription documents have been received and are under review, wire transfer the subscription amount to the Company's designated escrow or operating account as specified in the Subscription Agreement. DO NOT WIRE FUNDS before receiving wire instructions from the Company or its Capital Consultant.
- Step 6 — Await Acceptance Confirmation: The Company will review your subscription documents and notify you of acceptance or rejection within five (5) business days of receipt of complete documentation and funds.
- Step 7 — Receive Closing Documentation: Upon acceptance of your subscription and Closing, you will receive: an executed copy of the Stockholders Agreement; a book-entry confirmation or share certificate evidencing your Series A Shares; an updated capitalization table; and a welcome letter from the Company's management.

Subscription Contact Information:

TriUnity Capital Ventures, LLC | Capital Consultant and Sponsoring Fund
6345 S. Pecos Road, Suite 109, Las Vegas, NV 89120
Christopher Anderson | christopher@bankabledeals.com | 404-259-9878
www.bankabledeals.com

EXHIBIT A — FORM OF STOCKHOLDERS AGREEMENT

The Stockholders Agreement governs the rights and obligations of the Company's shareholders following each Closing of the Series A Offering, including Board composition, observer rights, information rights, reserved matters requiring Series A consent, pre-emptive rights, anti-dilution provisions, drag-along and tag-along provisions, transfer restrictions, and other governance matters. A complete form of the Stockholders Agreement will be provided to prospective investors upon request and will be executed at or prior to each Closing. The summary of key terms contained in the 'Summary of Stockholders Agreement' section of this Memorandum is qualified in its entirety by the full text of the Stockholders Agreement.

EXHIBIT B — FORM OF SUBSCRIPTION AGREEMENT AND ACCREDITED INVESTOR QUESTIONNAIRE

The Subscription Agreement is the binding agreement pursuant to which each investor purchases Units of Series A Convertible Preferred Stock. By executing the Subscription Agreement, the investor makes representations and warranties regarding accredited investor status, investment intent, sophistication, access to information, and absence of bad actor disqualifying events. The Subscription Agreement also incorporates the Accredited Investor Questionnaire, which requires detailed financial information to verify accredited investor qualification. Complete subscription documents will be provided to prospective investors upon request.

EXHIBIT C — GEORGETOWN UNIVERSITY EXCLUSIVE LICENSE AGREEMENT SUMMARY

This exhibit contains a summary of the material terms of the Exclusive License Agreement between Trocar Pharma, Inc. and Georgetown University (Agreement No. 2022-0493, executed June 29, 2022), including the scope of the license, the licensed technology, field of use, sublicensing provisions, development milestone obligations, royalty and payment terms, IP ownership, and termination provisions. The full text of the executed Exclusive License Agreement is available for review by serious prospective investors during the due diligence process under appropriate confidentiality protections.

EXHIBIT D — DOD/AFRRI PRECLINICAL STUDY SUMMARIES

This exhibit contains non-confidential summaries of the key preclinical studies conducted by the U.S. Department of Defense Armed Forces Radiobiology Research Institute (AFRRI) in collaboration with Trocar Pharma, Inc. regarding RadShield™ (YK-4-250). Summaries cover the GI-ARS survival study (88% vs. 58% at 14.3 Gy LD50), DNA repair endpoints (double-strand and single-strand break reversal), intestinal crypt and stem cell survival data, bacteremia reduction, gut mucosa restoration, and radiation-induced lung injury studies. Full study reports are available for review during due diligence under appropriate confidentiality protections.

EXHIBIT E — DETAILED USE OF PROCEEDS AND DEVELOPMENT BUDGET

This exhibit contains a detailed three-year development budget and use-of-proceeds plan specifying the allocation of the Maximum Offering proceeds across all major development workstreams, including GLP toxicology, Phase 1 and Phase 2 clinical trials, CMC scale-up, regulatory affairs, government business development, and corporate operations. The budget includes line-item detail, anticipated timing of expenditures, and key assumptions underlying the cost estimates. This exhibit should be read together with the Use of Proceeds section of the Memorandum.

EXHIBIT F — SOLE SOURCE JUSTIFICATION MEMORANDUM

This exhibit contains the Company's Sole Source Justification Memorandum, which analyzes the basis for non-competitive government procurement of RadShield™ (YK-4-250) under applicable federal acquisition regulations, including FAR Part 6 sole source justification criteria, the absence of competitive alternatives with RadShield™'s combination of GI-ARS indication coverage, oral delivery, DoD validation, and exclusive university license. This memorandum has been prepared for internal government affairs strategy purposes and has not been submitted to or reviewed by any government agency.

EXHIBIT G — GOVERNMENT CONTRACTING AND PROCUREMENT APPENDICES

This exhibit contains the full Government Contracting and Investment Appendices prepared for institutional investors, covering: Appendix A (U.S. Government Contracting Framework — HHS/BARDA, DoD, DHS/FEMA); Appendix B (BARDA and DoD Precedent Case Studies); Appendix C (Procurement Timeline Schematic); Appendix D (Regulatory and Contracting Milestone Alignment); and Appendix E (Investor Investment Committee Memo). These materials were prepared for institutional investor and government-aligned capital provider review.

EXHIBIT H — FINANCIAL PROJECTIONS MODEL OUTPUTS (ONE-PAGE SUMMARY)

This exhibit contains a one-page summary of the Company's financial projections model outputs, including the 7-year DCF valuation summary, 10-year revenue projection by market segment, SAM/SOM analysis, and key financial assumptions. The full financial model with all underlying assumptions and scenario analysis is available for review during due diligence under NDA.

EXHIBIT I — TROCAR PHARMA Q1 2025 PROGRESS REPORT

This exhibit contains Trocar Pharma's Q1 2025 Progress Report, which summarizes the Company's key achievements during Q1 2025, including updates on the DoD/AFRRI collaboration, NIH 1U01 grant process (Priority Score: 30), non-dilutive value creation activities, market analysis and pipeline diversification, and strategic military leadership board recruitment initiative. The Progress Report provides investors with current information on Company activities beyond the date of its preparation.

EXHIBIT J — COMPETITIVE ANALYSIS AND COMPARABLES PACKAGE

This exhibit contains the Company's competitive analysis of the radiation MCM market, including detailed comparison of RadShield™ against approved H-ARS agents and known pipeline competitors, as well as a pharmaceutical comparables package providing acquisition and licensing transaction comparables for similar-stage radiation countermeasure and national security pharmaceutical assets.

EXHIBIT A

FORM OF STOCKHOLDERS AGREEMENT

STOCKHOLDERS AGREEMENT

Trocar Pharma, Inc. — Series A Preferred Stock

This Stockholders Agreement (this "Agreement") is entered into as of the Closing Date (as defined in the Subscription Agreement), by and among Trocar Pharma, Inc., a Delaware corporation (the "Company"); Milton Brown Sr., PhD (the "Founder"); and each person or entity that executes a counterpart signature page hereto as a holder of Series A Convertible Preferred Stock (each, a "Series A Holder" and collectively, the "Series A Holders"). The Company, the Founder, and the Series A Holders are each referred to herein as a "Party" and collectively as the "Parties."

ARTICLE I — DEFINITIONS

As used in this Agreement, the following terms have the meanings set forth below:

- "Board" means the Board of Directors of the Company.
- "Class A Common Stock" means the Class A Common Stock of the Company, \$0.001 par value per share, carrying one (1) vote per share.
- "Class B Common Stock" means the Class B Common Stock of the Company, \$0.001 par value per share, carrying ten (10) votes per share, held exclusively by the Founder.
- "Closing" means each closing of the sale of Units pursuant to the Offering.
- "Deemed Liquidation Event" means: (i) a merger, acquisition, or consolidation in which the stockholders of the Company immediately before the transaction hold less than 50% of the voting power of the surviving entity; (ii) a sale, license, or transfer of all or substantially all of the assets of the Company; or (iii) any other transaction that the Company's Board and a majority of Series A Holders agree constitutes a deemed liquidation.
- "Drag-Along Sale" means a transaction approved by holders of a majority of outstanding shares on an as-converted basis, requiring all stockholders to sell their shares on the same terms.

- "Excluded Issuances" means securities issued: (i) pursuant to the Company's equity incentive plan approved by the Board; (ii) upon conversion of outstanding convertible securities; (iii) in connection with Board-approved mergers or acquisitions; or (iv) as consideration in bona fide equipment leasing or debt financing transactions.
- "Fully Diluted" means all outstanding shares of capital stock calculated on an as-converted, as-exercised basis.
- "Qualified IPO" means an underwritten public offering of the Company's common stock on a national securities exchange yielding gross proceeds of at least \$75,000,000 at a per-share price at least 3× the Series A original purchase price.
- "Series A Director" means the director designated by the Series A Holders pursuant to Section 2.2 hereof.
- "Series A Original Purchase Price" means \$100,000 per Unit (representing one share of Series A Convertible Preferred Stock).

ARTICLE II — BOARD COMPOSITION AND GOVERNANCE

2.1 Board Size and Composition

Immediately following each Closing, and continuing for so long as any Series A Shares remain outstanding, the Board shall consist of five (5) directors unless otherwise agreed by the Founder and holders of a majority of outstanding Series A Shares. The Founder shall have the right to designate four (4) directors at all times (the "Founder Directors"). The Series A Holders, voting as a separate class, shall have the right to designate one (1) director (the "Series A Director").

2.2 Series A Director Designation

The initial Series A Director shall be designated by written notice from the holders of a majority of outstanding Series A Shares to the Company within fifteen (15) days following the initial Closing. Any vacancy in the Series A Director seat shall be filled only by a vote of holders of a majority of outstanding Series A Shares. The Company shall take all actions necessary to ensure that the Series A Director is appointed and seated promptly upon designation.

2.3 Irrevocable Chairman Designation

Milton Brown Sr., PhD is hereby irrevocably designated as Chairman of the Board for so long as he holds any shares of Class B Common Stock or is otherwise a stockholder of the Company. This designation is permanent and cannot be modified, suspended, or terminated by: (i) any vote of the Board; (ii) any vote of the stockholders of any class; (iii) any amendment to the Certificate of Incorporation or Bylaws without the Founder's prior written consent; or (iv) any other corporate action. The Founder may voluntarily resign as Chairman upon written notice to the Board. Upon the Founder's death, permanent incapacity (as certified by two licensed physicians), or voluntary resignation, the right to designate the successor Chairman shall vest in the Board by majority vote.

2.4 Observer Rights

Any Series A Holder holding fifty (50) or more Units (\$5,000,000 or more in invested capital) shall be entitled to designate one (1) non-voting Board Observer. The Board Observer shall receive all Board meeting notices, materials, and consents simultaneously with directors, and shall be entitled to attend all Board meetings in a non-voting, observational capacity. The Board Observer may be

excluded from portions of meetings that the Chairman or General Counsel determines in good faith involve matters subject to attorney-client privilege or create a direct conflict of interest.

ARTICLE III — INFORMATION AND REPORTING RIGHTS

The Company shall provide each Series A Holder, for so long as such holder holds at least one (1) Unit, with the following:

Report Type	Delivery Deadline	Content
Quarterly Unaudited Financials	45 days after each fiscal quarter end	Balance sheet, income statement, cash flow statement, operational narrative, Use of Proceeds reconciliation
Annual Financial Statements	120 days after fiscal year end	Annual financial statements (audited if obtained); full year operational review
Annual Budget	30 days before fiscal year end	Operating budget and development plan for the upcoming fiscal year
Material Event Notices	Promptly upon occurrence	Clinical trial results (positive or negative), regulatory decisions, government contract developments, key personnel changes, material litigation
Development Milestones Update	With quarterly reports	Clinical development progress, regulatory affairs, government contracting activities

ARTICLE IV — RESERVED MATTERS

Without the prior written consent of holders of a majority of outstanding Series A Shares, voting as a separate class, the Company shall not, and shall cause its subsidiaries not to:

- Amend, restate, or modify the Certificate of Incorporation, Bylaws, or this Agreement in any manner that adversely affects the rights, preferences, or privileges of the Series A Preferred Stock;
- Issue any equity securities senior to or pari passu with the Series A Preferred Stock in liquidation, dividend, or other rights;
- Issue any equity securities (other than Excluded Issuances) in excess of \$1,000,000 in any single transaction or series of related transactions;
- Incur indebtedness for borrowed money in excess of \$1,000,000 outside the ordinary course of business in any single transaction or series of related transactions;
- Sell, transfer, lease, license, or otherwise dispose of material assets of the Company, including the Georgetown University Exclusive License Agreement;
- Enter into any transaction with the Founder, any director, officer, or holder of 5% or more of the Company's capital stock, or any affiliate of any of the foregoing, except on arm's-length terms approved by disinterested directors;
- Reallocate proceeds from the Use of Proceeds Plan by more than 15% of any single line item without prior Series A Holder consultation;
- Approve or authorize any acquisition of another business, whether through stock purchase, asset purchase, or merger;
- Remove or replace the Chief Executive Officer or Chief Financial Officer other than for cause; or
- Approve or authorize any liquidation, dissolution, winding up, or bankruptcy filing of the Company.

ARTICLE V — PRE-EMPTIVE RIGHTS

Each Series A Holder shall have the right, but not the obligation, to purchase their pro-rata share (based on Fully Diluted ownership) of any future issuances of equity securities by the Company ("New Securities"), except for Excluded Issuances, in order to maintain their then-current percentage ownership. The Company shall provide written notice of any proposed issuance at least fifteen (15) business days in advance. Each Series A Holder shall have ten (10) business days to elect to exercise. Pre-emptive rights not exercised within the notice period shall lapse with respect to that offering.

ARTICLE VI — ANTI-DILUTION

The Series A Preferred Stock carries weighted-average anti-dilution protection, broad-based, as described in the Company's Certificate of Incorporation. In the event of a Down Round Issuance (defined as any issuance of equity at a price below the then-effective Series A conversion price, other than Excluded Issuances), the Series A conversion price shall be adjusted using the formula: $\text{New Conversion Price} = \text{Old Price} \times [(A + B) / (A + C)]$, where A = total shares outstanding (Fully Diluted) immediately prior to the issuance; B = shares that the total consideration received would purchase at the Old Conversion Price; and C = actual shares issued in the Down Round. The anti-dilution period runs for twelve (12) months following the initial Closing unless extended by a majority of Series A Holders.

ARTICLE VII — DRAG-ALONG AND TAG-ALONG RIGHTS

7.1 Drag-Along Rights

If holders of a majority of the outstanding shares of all classes of capital stock (voting on an as-converted basis) approve a Drag-Along Sale, each Series A Holder shall be required to vote in favor of such transaction, tender their shares on the same terms, and take all other actions necessary to consummate the transaction, provided that: (i) the consideration per Series A Share equals or exceeds the Liquidation Preference (\$150,000 per Unit representing 1.5× invested capital); (ii) the transaction is with an unaffiliated third party; and (iii) the representations, warranties, and indemnification obligations required of Series A Holders are no more onerous than those required of the Founder.

7.2 Tag-Along Rights

If the Founder proposes to transfer shares of Class B or Class A Common Stock representing more than 5% of the Fully Diluted shares outstanding to any third party (other than permitted transfers to family members or family trusts), each Series A Holder shall have the right to participate in such transfer on the same terms and conditions, on a pro-rata basis. The Founder shall provide Series A Holders with at least fifteen (15) business days' written notice before consummating any such transfer.

ARTICLE VIII — TRANSFER RESTRICTIONS

No Series A Holder may sell, assign, transfer, pledge, hypothecate, or otherwise dispose of any Series A Shares without: (i) the prior written consent of the Company (not to be unreasonably withheld for transfers to affiliates or family trusts of the transferor); (ii) compliance with applicable federal and state securities laws; and (iii) delivery of a written agreement by the transferee to be bound by the terms of this Agreement. Any attempted transfer in violation of this Article shall be void and of no effect.

ARTICLE IX — MISCELLANEOUS

9.1 Governing Law. This Agreement shall be governed by the laws of the State of Delaware, without regard to conflicts of law principles.

9.2 Dispute Resolution. Any dispute arising under this Agreement shall be resolved by binding arbitration in Washington, D.C. under the rules of the American Arbitration Association, before a single arbitrator with experience in Delaware corporate law.

9.3 Entire Agreement. This Agreement, together with the Certificate of Incorporation, Bylaws, and Subscription Agreement, constitutes the entire agreement among the Parties with respect to the subject matter hereof.

9.4 Amendments. This Agreement may be amended only by a written instrument signed by the Company, the Founder, and holders of a majority of outstanding Series A Shares.

9.5 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original. Electronic signatures shall be deemed original signatures for all purposes.

[SIGNATURE PAGES FOLLOW]

TROCAR PHARMA, INC.	FOUNDER
By: _____	By: _____
Name: Milton Brown Sr., PhD	Name: Milton Brown Sr., PhD
Title: Chairman & CEO	Title: Founder & Chairman
Date: _____	Date: _____

SERIES A HOLDER SIGNATURE PAGE — attach additional pages as needed

SERIES A HOLDER	UNITS SUBSCRIBED	SIGNATURE & DATE

EXHIBIT B

FORM OF SUBSCRIPTION AGREEMENT AND ACCREDITED INVESTOR QUESTIONNAIRE

SUBSCRIPTION AGREEMENT

Trocar Pharma, Inc. — Series A Convertible Preferred Stock

This Subscription Agreement (this "Agreement") is entered into by and between Trocar Pharma, Inc., a Delaware corporation (the "Company"), and the undersigned subscriber (the "Subscriber"). By executing this Agreement, the Subscriber irrevocably offers to purchase the number of Units of Series A Convertible Preferred Stock specified on the Signature Page hereof, at a purchase price of \$100,000 per Unit, subject to the Company's acceptance.

ARTICLE I — SUBSCRIPTION AND PURCHASE

1.1 Subscription. The Subscriber hereby irrevocably subscribes for and agrees to purchase from the Company, and the Company agrees to sell to the Subscriber (subject to the Company's right to accept or reject subscriptions in its sole discretion), such number of Units of Series A Convertible Preferred Stock (the "Units" or "Shares") as is set forth on the Signature Page hereof, at a price of \$100,000 per Unit. The aggregate purchase price (the "Subscription Amount") shall be paid by wire transfer of immediately available funds to the account designated by the Company upon acceptance of this Agreement.

1.2 Wire Transfer Instructions. Wire instructions will be provided by the Company or TriUnity Capital Ventures, LLC upon acceptance of the Subscriber's subscription. DO NOT wire funds until instructions are received directly from an authorized representative of the Company. The Company shall not be responsible for funds sent to incorrect accounts based on fraudulent wire instructions obtained from unauthorized sources.

1.3 Acceptance. The Company may accept or reject this subscription in whole or in part, in its sole and absolute discretion, for any reason or no reason. This Agreement shall not be binding on the

Company until executed by an authorized officer of the Company. Subscriptions not accepted within fifteen (15) business days of receipt of complete documentation shall be deemed rejected and any funds received shall be returned promptly without interest.

1.4 Use of Proceeds. The Company shall use the Subscription Amount in accordance with the Use of Proceeds described in the Private Placement Memorandum dated April 2026 (the "Memorandum"), subject to the management discretion provisions set forth therein.

ARTICLE II — SUBSCRIBER REPRESENTATIONS AND WARRANTIES

The Subscriber hereby represents and warrants to the Company, as of the date hereof and as of the Closing, as follows:

2.1 Accredited Investor Status. The Subscriber is an "accredited investor" as defined in Rule 501(a) of Regulation D under the Securities Act of 1933, as amended, and qualifies on the basis(es) checked in the Accredited Investor Questionnaire attached hereto as Exhibit 1.

2.2 Investment Intent. The Subscriber is acquiring the Units for its own account, for investment purposes only, and not with a view to, or for resale in connection with, any distribution or public offering of the Units in violation of any federal or state securities law.

2.3 Receipt of Memorandum. The Subscriber has received, read, and reviewed in its entirety the Memorandum and all exhibits thereto, and understands the terms, conditions, and risks of the investment described therein.

2.4 Access to Information and Management. The Subscriber has had the opportunity to ask questions of and receive answers from the Company's management regarding the Company's business, financial condition, prospects, and the terms of the Offering, and has obtained all information that the Subscriber deems necessary in connection with making an investment decision.

2.5 Independent Advisors. The Subscriber has consulted with, or has had the opportunity to consult with, its own independent legal, tax, and financial advisors regarding the suitability of this investment and the federal, state, and local tax consequences thereof, and has not relied upon the Company, TriUnity Capital Ventures, LLC, or any of their respective officers, directors, or agents for any tax, legal, or investment advice.

2.6 Speculative Investment; Risk of Loss. The Subscriber understands that: (a) this investment is highly speculative and involves a substantial risk of loss, including a risk of total loss of the Subscription Amount; (b) no federal or state agency has reviewed, approved, or endorsed the Offering or the accuracy of the Memorandum; and (c) the Company is a pre-revenue, clinical-stage pharmaceutical company with no approved products.

2.7 Dual-Class Structure and Founder Control. The Subscriber understands and accepts that: (a) the Company maintains a dual-class voting structure in which Milton Brown Sr., PhD holds Class B Common Stock with 10 votes per share, giving him voting control over all stockholder matters; (b) holders of Series A Preferred Stock (which converts to Class A Common Stock at 1 vote per share) have limited ability to influence corporate governance through the voting process; and (c) Milton Brown Sr., PhD is irrevocably designated as Chairman of the Board of Directors and this designation cannot be removed by Board or stockholder vote without the Founder's written consent.

2.8 Illiquidity. The Subscriber understands that: (a) there is no public market for the Units and none is expected to develop; (b) the Units are subject to significant restrictions on transfer; (c) the Subscriber may be required to hold the Units for an indefinite period; and (d) the Subscriber must be able to bear the financial risks of this investment for an indefinite period of time.

2.9 No General Solicitation. The Subscriber has not been solicited through any general solicitation or advertising, and has a pre-existing, substantive relationship with the Company or TriUnity Capital Ventures, LLC through which this Offering was presented.

2.10 No Bad Actor Disqualification. Neither the Subscriber nor, to the Subscriber's knowledge, any person or entity that controls the Subscriber, is subject to any "disqualification event" under Rule 506(d)(1)(i)–(viii) of Regulation D.

2.11 Anti-Money Laundering. The funds used by the Subscriber to purchase the Units are not derived from or related to any unlawful activity, and the Subscriber is not a person listed on any OFAC Specially Designated Nationals list or subject to applicable sanctions.

2.12 Entity Authority. If the Subscriber is an entity, it is duly organized and validly existing; has full power and authority to execute this Agreement and consummate the transactions herein; and the person executing on its behalf has been duly authorized to do so.

ARTICLE III — COMPANY REPRESENTATIONS

The Company represents and warrants to the Subscriber as follows: (a) the Company is duly incorporated and in good standing under the laws of Delaware; (b) the Company has all requisite corporate power and authority to execute this Agreement and consummate the transactions herein; (c) the Units, when issued and paid for, will be duly authorized, validly issued, fully paid, and nonassessable; (d) the Memorandum does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein not misleading as of the date of the Memorandum; and (e) the Company is not subject to any order or agreement that would materially impair its ability to consummate this transaction.

ARTICLE IV — RESTRICTIVE LEGEND

The Subscriber understands and agrees that the Units shall bear the following restrictive legend (or a legend substantially similar thereto):

"THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE 'ACT'), OR THE SECURITIES LAWS OF ANY STATE, AND MAY NOT BE SOLD, TRANSFERRED, ASSIGNED, PLEDGED, OR OTHERWISE DISPOSED OF UNLESS REGISTERED UNDER THE ACT AND ANY APPLICABLE STATE SECURITIES LAWS OR UNLESS, IN THE OPINION OF COUNSEL SATISFACTORY TO THE COMPANY, AN EXEMPTION FROM SUCH REGISTRATION IS AVAILABLE. IN ADDITION, THESE SECURITIES ARE SUBJECT TO THE TERMS AND CONDITIONS OF A STOCKHOLDERS AGREEMENT, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY."

ARTICLE V — INDEMNIFICATION

The Subscriber agrees to indemnify, defend, and hold harmless the Company, TriUnity Capital Ventures, LLC, and their respective officers, directors, employees, agents, affiliates, and successors from and against any damages, losses, costs, or liabilities (including reasonable attorneys' fees) arising from: (a) any breach of any representation, warranty, or covenant made by the Subscriber herein; (b) any transfer of the Units by the Subscriber in violation of applicable securities laws or this Agreement; or (c) any misrepresentation made by the Subscriber in connection with this transaction.

ARTICLE VI — MISCELLANEOUS

6.1 Entire Agreement. This Agreement, together with the Memorandum, Stockholders Agreement, and Certificate of Incorporation, constitutes the entire agreement between the parties with respect to the subject matter hereof.

6.2 Governing Law. This Agreement shall be governed by the laws of the State of Delaware.

6.3 Counterparts; Electronic Signatures. This Agreement may be executed in counterparts. Electronic (PDF/DocuSign) signatures shall be deemed originals.

6.4 Survival. All representations, warranties, and covenants shall survive execution and delivery of this Agreement and the Closing.

SIGNATURE PAGE

SUBSCRIBER INFORMATION	
Number of Units Subscribed:	Units (minimum 1 Unit = \$100,000)
Total Subscription Amount:	\$ (Units × \$100,000)
Full Legal Name of Subscriber:	
Entity Type (if applicable):	☐ Individual ☐ LLC ☐ Corporation ☐ Trust ☐ Other: _____
Tax ID / SSN:	
Address:	
City / State / ZIP:	
Phone:	
Email:	

INDIVIDUAL SIGNATURE	ENTITY SIGNATURE (if applicable)
Signature: _____	Authorized Signature: _____
Print Name: _____	Print Name: _____
Date: _____	Title: _____
	Entity Name: _____
	Date: _____

ACCEPTED BY TROCAR PHARMA, INC.:

Signature: _____

Name: _____

Title: _____ Date: _____

EXHIBIT 1 TO SUBSCRIPTION AGREEMENT

ACCREDITED INVESTOR QUESTIONNAIRE

This Questionnaire must be completed by all prospective investors. The information provided will be used solely to determine the Subscriber's eligibility to participate in the Offering. All information will be kept strictly confidential.

PART A — INDIVIDUAL INVESTOR QUALIFICATION

Check ALL that apply to you as an individual investor:

☐ NET WORTH TEST: My individual net worth, or joint net worth with my spouse or spousal equivalent, exceeds \$1,000,000, EXCLUDING the value of my primary residence (and excluding any debt secured by my primary residence in excess of its fair market value).

☐ INCOME TEST (INDIVIDUAL): My individual income exceeded \$200,000 in each of calendar years 2023 and 2024, and I reasonably expect individual income to exceed \$200,000 in calendar year 2025/2026.

☐ INCOME TEST (JOINT): My joint income with my spouse or spousal equivalent exceeded \$300,000 in each of calendar years 2023 and 2024, and I reasonably expect joint income to exceed \$300,000 in calendar year 2025/2026.

☐ PROFESSIONAL CERTIFICATION: I hold in good standing a FINRA Series 7, Series 65, or Series 82 license or other SEC-designated accredited investor qualification credential.

☐ KNOWLEDGEABLE EMPLOYEE: I am a knowledgeable employee of Trocar Pharma, Inc. as defined under Rule 3c-5(a)(4) of the Investment Company Act of 1940.

PART B — ENTITY INVESTOR QUALIFICATION

Check ALL that apply to the subscribing entity:

☐ INSTITUTIONAL INVESTOR: Entity is a bank, savings association, insurance company, registered investment company, business development company, or SBIC registered under the Investment Company Act of 1940.

☐ ASSETS EXCEEDING \$5,000,000: Entity is a corporation, LLC, partnership, trust, or similar entity NOT formed for the specific purpose of acquiring these securities, with total assets exceeding \$5,000,000.

☐ ALL EQUITY OWNERS ACCREDITED: Entity is any organization in which ALL equity owners are themselves accredited investors.

☐ FAMILY OFFICE: Entity is a family office (as defined in Rule 202(a)(11)(G)-1 under the Investment Advisers Act) with AUM exceeding \$5,000,000, not formed for the specific purpose of acquiring these securities.

☐ ERISA PLAN / IRA / KEOGH: Entity is an employee benefit plan within the meaning of ERISA whose investment decisions are made by a registered investment adviser, bank, or insurance company, OR an IRA or Keogh plan with total assets exceeding \$5,000,000.

☐ SEC/CFTC REGISTRANT: Entity is a registered broker-dealer, investment adviser, or commodity pool operator.

PART C — SOURCE OF FUNDS (AML COMPLIANCE)

Indicate the primary source of the funds being invested (check all that apply):

☐ Personal savings / earned income ☐ Business income / corporate funds ☐ Investment portfolio liquidation

☐ Proceeds from sale of real property ☐ Inheritance or gift ☐ Other (describe):

I hereby certify that the information provided in this Questionnaire is true, accurate, and complete as of the date set forth below, and I agree to notify the Company promptly of any change in circumstances that would affect the accuracy of any of the foregoing information.

Signature: _____

Print Name: _____ Date: _____

EXHIBIT C

GEORGETOWN UNIVERSITY EXCLUSIVE LICENSE AGREEMENT — SUMMARY OF MATERIAL TERMS

LICENSE AGREEMENT SUMMARY

The following is a summary of the material terms of the Exclusive License Agreement between Georgetown University ("Licensor") and Trocar Pharma, Inc. ("Licensee"), Agreement No. 2022-0493, executed June 29, 2022 (the "License Agreement"). This summary is qualified in its entirety by the full text of the License Agreement, which is available for review by serious prospective investors during the due diligence process under appropriate confidentiality protections. The full executed License Agreement is among the corporate records of Trocar Pharma, Inc.

KEY TERMS AT A GLANCE

Term	Description
Agreement Number	2022-0493
Effective Date	June 29, 2022
Licensor	Georgetown University, a District of Columbia nonprofit corporation, with offices at 37th and O Streets, N.W., Washington, D.C. 20057
Licensee	Trocar Pharma, Inc., a Delaware corporation
Licensed Technology	YK-4-250 compound and all related patents, patent applications, know-how, data, and technology developed or controlled by Georgetown University related to the use of YK-4-250 for therapeutic purposes
License Type	Exclusive, worldwide license
Field of Use	All fields and all therapeutic indications, including but not limited to: GI-ARS mitigation, H-ARS mitigation, inflammatory bowel disease, pulmonary fibrosis, colon cancer, neuroinflammation, antiviral applications, and all other human health indications
Territory	Worldwide
Sublicensing Rights	Licensee may sublicense with prior written consent of Georgetown University; sublicense fees to be shared per the License Agreement
IP Ownership	Georgetown University retains ownership of all Licensed Technology and underlying patents; Licensee holds exclusive development and commercialization rights
Term	Life of the last-to-expire licensed patent, unless earlier terminated

LICENSED PATENT RIGHTS

The License Agreement grants rights to all patents, patent applications, and continuations related to YK-4-250 (also known as Telmisartan/Tempol combination compound) developed at Georgetown University. The patent portfolio covers: (i) the composition of matter of YK-4-250; (ii) methods of treatment using YK-4-250 for radiation-induced injury; (iii) formulations of YK-4-250 for pharmaceutical use; and (iv) methods of manufacturing YK-4-250. Georgetown University retains the right to practice the Licensed Technology for non-commercial research and educational purposes.

FINANCIAL TERMS

The License Agreement includes the following financial obligations (summarized; exact terms confidential and available under NDA):

- Upfront license fee: Paid at execution of the License Agreement
- Annual maintenance fees: Annual fees payable on each anniversary of the Effective Date
- Milestone payments: Payments triggered upon achievement of specified regulatory and commercial milestones, including IND filing, Phase 1 initiation, Phase 2 completion, FDA approval, and first commercial sale
- Royalties: Running royalties on net sales of Licensed Products, with royalty rates that vary by territory and product type
- Sublicense revenue share: A percentage of sublicense fees and milestone payments received from sublicensees to be shared with Georgetown University

The Company believes it has the financial resources, including proceeds from this Offering, to satisfy all financial obligations under the License Agreement through at least Phase 2 clinical completion.

DEVELOPMENT OBLIGATIONS

The License Agreement requires the Licensee to use diligent efforts to develop and commercialize the Licensed Technology. The License Agreement includes a development plan with specified milestones that the Company is required to achieve within defined timeframes. The Company's current development plan — funded by proceeds of this Offering — is designed to satisfy all development obligation milestones through Phase 2 clinical completion. Failure to achieve development milestones within specified timeframes could give Georgetown University the right to terminate the exclusive nature of the license or the license itself.

TERMINATION PROVISIONS

The License Agreement may be terminated: (i) by Georgetown University upon material breach by the Licensee that is not cured within sixty (60) days of written notice; (ii) by Georgetown University if Licensee becomes insolvent or files for bankruptcy; (iii) by Licensee upon ninety (90) days' prior written notice to Georgetown University; or (iv) automatically upon certain insolvency events. Upon termination for any reason, all rights granted to Licensee revert to Georgetown University, and Licensee must promptly cease all use of the Licensed Technology.

SIGNIFICANCE TO INVESTORS

The Georgetown University Exclusive License Agreement constitutes the foundational intellectual property moat of Trocar Pharma, Inc. Because the license is exclusive and worldwide, no other entity — including large pharmaceutical companies, defense contractors, or competing startups — has the right to develop, manufacture, or commercialize YK-4-250 for any therapeutic indication without first obtaining a sublicense from Trocar Pharma. The maintenance of this exclusive license in good standing is essential to the Company's competitive position and commercial value. Investors should carefully review the termination provisions and the Company's ongoing obligations to ensure the license remains in full force and effect.

Note: The above summary does not purport to be a complete description of all terms of the License Agreement. Investors are urged to review the full License Agreement, which is available during due diligence under appropriate confidentiality protections.

EXHIBIT D

DOD/AFRRI PRECLINICAL STUDY SUMMARIES — RADSHIELD™ (YK-4-250)

PRECLINICAL STUDY PROGRAM OVERVIEW

The following summaries describe the key preclinical studies conducted by and in collaboration with the U.S. Department of Defense Armed Forces Radiobiology Research Institute (AFRRI) regarding RadShield™ (YK-4-250). AFRRI is the only DoD laboratory specifically dedicated to research in radiation biology and radiation medical countermeasures, located at the Uniformed Services University of the Health Sciences in Bethesda, Maryland. These studies represent \$4.5 million or more in total DoD-sponsored research investment and constitute the primary scientific validation of RadShield's efficacy and mechanism of action. Full study protocols, raw data, and statistical analyses are available for review by qualified investors during due diligence under appropriate confidentiality and non-disclosure agreements. All studies were conducted under IACUC-approved protocols at AFRRI.

Study	Model	Key Metric	RadShield Result	Control Result	Significance
GI-ARS Survival	C57BL/6 mice, 14.3 Gy	30-day survival	88%	58%	p<0.01, log-rank
Intestinal Crypt	C57BL/6 mice, 12–14 Gy	Crypt number / LGR5+	Significantly increased	Severely depleted	p<0.05
DNA Repair	γ-H2AX / Comet assay	Double-strand breaks	Reversed	Persistent	Statistically sig.
Bacteremia	Blood culture at days 5,7	Colony-forming units	Significantly reduced	Elevated	p<0.05
Gut Integrity	FITC-dextran permeability	Barrier function	Restored	Collapsed	Statistically sig.
Lung Injury	Thoracic irradiation 12–15 Gy	Fibrosis score / FVC	Mitigated	Progressive fibrosis	Statistically sig.

STUDY 1: GI-ARS PRIMARY SURVIVAL STUDY

Study Design

Male and female C57BL/6 mice were exposed to whole-body γ -irradiation at 14.3 Gray (Gy) using a cesium-137 irradiator — the established LD50 dose for this model. Animals were randomized to receive either RadShield (YK-4-250) administered orally or vehicle control within 24 hours post-irradiation. Animals were monitored daily for 30 days post-exposure. Primary endpoint: 30-day survival. Secondary endpoints: body weight, clinical signs of radiation sickness (diarrhea, hemorrhage, lethargy), time to death in non-survivors.

Results

RadShield-treated animals demonstrated a 30-day survival rate of 88% (n=XX/XX) compared to 58% (n=XX/XX) in vehicle controls, representing a statistically significant improvement of more than 30 percentage points ($p < 0.01$, log-rank test). The survival benefit was consistent across male and female animals and was replicated across multiple independent study cohorts. Surviving animals in the RadShield group showed significantly better body weight recovery, fewer clinical signs of radiation sickness, and earlier return to baseline activity compared to controls. Among non-surviving animals, median time to death was significantly delayed in the RadShield group, indicating attenuation of the severity of the GI-ARS syndrome even in animals that did not ultimately survive.

Clinical Significance

The 14.3 Gy exposure level corresponds to radiation doses achievable at the periphery of an improvised nuclear device detonation or through significant fallout exposure following a nuclear weapon use. At this dose level, GI-ARS is the dominant cause of death, and the improvement in survival demonstrated by RadShield represents a clinically meaningful advance over the current standard of care (supportive care only, with no approved GI-ARS-specific therapeutic).

STUDY 2: INTESTINAL HISTOPATHOLOGY AND CRYPT SURVIVAL

Study Design

C57BL/6 mice were irradiated at doses ranging from 12–14 Gy and administered RadShield or vehicle. Intestinal tissue was collected at days 3, 5, and 7 post-irradiation for histopathological analysis including: hematoxylin and eosin (H&E) staining for villus height and crypt number; immunofluorescence staining for LGR5+ intestinal stem cell markers; and morphometric analysis of crypt-villus architecture.

Results

RadShield-treated animals showed significantly greater intestinal crypt survival at all three time points compared to vehicle controls. Quantitative morphometric analysis demonstrated higher crypt numbers per unit length of intestine, greater villus height, and significantly higher LGR5+ stem cell populations in the intestinal crypts. Histological scoring of intestinal damage (using a validated radiation enteropathy scoring system) was significantly lower in the RadShield group, confirming preservation of the fundamental structural and regenerative architecture of the intestinal epithelium.

Clinical Significance

Intestinal crypt survival and LGR5+ stem cell preservation are well-validated histopathological surrogate endpoints for GI-ARS treatment efficacy. The intestinal crypt is the regenerative unit of the gut epithelium — without crypt stem cells, the intestinal lining cannot regenerate following radiation injury. RadShield's demonstrated ability to preserve LGR5+ crypt stem cells explains its survival benefit and predicts its ability to restore intestinal function in treated animals. This endpoint is directly relevant to the FDA's Animal Rule animal study endpoint requirements for MCM approval.

STUDY 3: DNA REPAIR ENDPOINTS

Study Design

Intestinal epithelial cells were isolated from irradiated C57BL/6 mice at 4 hours and 24 hours post-irradiation. DNA damage was quantified by: (i) γ -H2AX immunofluorescence — a highly specific and sensitive marker of DNA double-strand breaks (DSBs), with each γ -H2AX focus corresponding to approximately one DSB; and (ii) alkaline comet assay — a sensitive electrophoretic method that detects both single-strand and double-strand DNA breaks, reported as olive tail moment (OTM).

Results

At both 4-hour and 24-hour time points, RadShield-treated animals showed statistically significant reductions in γ -H2AX foci counts per cell compared to vehicle controls, indicating substantially fewer DNA double-strand breaks or significantly faster repair of such breaks. Comet assay results demonstrated significantly reduced olive tail moment in RadShield-treated animals at both time points, consistent with reversal or enhanced repair of both single-strand and double-strand DNA breaks. The magnitude of the effect was greater at the 24-hour time point compared to the 4-hour time point, suggesting that RadShield promotes ongoing DNA repair rather than simply preventing initial DNA damage.

Clinical Significance

Unrepaired DNA double-strand breaks are the primary driver of radiation-induced apoptosis in intestinal epithelial cells. By accelerating or enabling the repair of both single-strand and double-strand DNA breaks, RadShield preserves the viability of intestinal epithelial cells and their progenitors, consistent with the crypt survival and overall survival findings in Studies 1 and 2. These findings also have implications for RadShield's potential utility in medical oncology, where radiation therapy-induced DNA damage in normal tissues is a significant source of side effects.

STUDY 4: BACTEREMIA AND MUCOSAL BARRIER INTEGRITY

Study Design

Blood was collected from irradiated C57BL/6 mice at days 5 and 7 post-irradiation and cultured under aerobic and anaerobic conditions to quantify bacteremia (bacterial colony-forming units per milliliter of blood). Gut permeability was assessed by the FITC-dextran assay: animals received oral gavage of FITC-labeled dextran, and serum fluorescence was measured 4 hours later as a validated quantitative measure of intestinal barrier function. Tight junction protein expression (ZO-

1, claudin-1, occludin) was quantified by Western blot and immunofluorescence on intestinal tissue sections.

Results

RadShield-treated animals showed significantly lower blood bacterial colony counts at both time points compared to controls, indicating substantially reduced bacterial translocation from the gut lumen into the systemic circulation. Serum FITC-dextran concentrations were significantly lower in RadShield-treated animals, confirming better preservation of intestinal barrier integrity. Tight junction protein expression was significantly higher in treated animals, providing a mechanistic explanation for the barrier function improvement and demonstrating that RadShield's effects are mediated at least in part through preservation of the tight junction architecture of the intestinal epithelium.

Clinical Significance

Systemic bacteremia secondary to intestinal mucosal barrier failure is the proximate cause of death in the majority of GI-ARS fatalities who survive the initial radiation injury. Gram-negative bacteria from the gut lumen translocate into the systemic circulation, causing septic shock, multi-organ failure, and death. RadShield's demonstrated ability to preserve intestinal barrier integrity and dramatically reduce bacteremia addresses one of the primary mechanisms of GI-ARS lethality and is directly consistent with the compound's primary survival benefit observed in Study 1.

STUDY 5: RADIATION-INDUCED LUNG INJURY / PULMONARY FIBROSIS

Study Design

Mice received targeted thoracic irradiation at 12–15 Gy — a dose range associated with delayed radiation-induced lung injury and pulmonary fibrosis. RadShield was administered at defined intervals post-irradiation. Pulmonary outcomes were assessed at 4–6 months post-irradiation, the timeframe at which radiation-induced fibrosis typically manifests, by: lung histopathology with Masson's trichrome staining for collagen deposition (fibrosis scoring); pulmonary function testing (forced vital capacity, lung compliance, respiratory rate); and serum and bronchoalveolar lavage fluid analysis for pro-inflammatory and pro-fibrotic cytokines (TGF- β 1, IL-6, TNF- α , IL-1 β).

Results

RadShield-treated animals demonstrated significantly reduced pulmonary fibrosis scores on histopathological assessment, with substantially less collagen deposition in the alveolar parenchyma compared to vehicle controls. Pulmonary function parameters were significantly better preserved in treated animals, with higher forced vital capacity and better lung compliance. Serum and BALF levels of TGF- β 1, IL-6, and other pro-fibrotic mediators were significantly lower in treated animals, consistent with suppression of the inflammatory and fibrotic signaling cascade driven by the ACE2/RAS pathway.

Clinical Significance

Radiation-induced pulmonary fibrosis is a delayed but potentially fatal complication of high-dose radiation exposure, occurring in both nuclear incident survivors and cancer patients receiving thoracic radiation therapy. RadShield's demonstrated efficacy against radiation-induced lung injury

extends its potential clinical utility beyond the acute GI-ARS setting and supports its pipeline application in oncology (radiation therapy side effect mitigation) and in late-onset complications of nuclear events.

EXHIBIT E

DETAILED USE OF PROCEEDS AND THREE-YEAR DEVELOPMENT BUDGET

USE OF PROCEEDS — MAXIMUM OFFERING (\$40,000,000)

The following table provides a detailed allocation of the Maximum Offering proceeds across all major development workstreams. This budget reflects management's best estimates based on CRO proposals received during Pre-IND planning, CMO quotations for cGMP API manufacture, regulatory consulting estimates, published industry benchmarks, and management's experience with pharmaceutical development programs of comparable scope. Actual costs may vary materially from these estimates based on clinical trial outcomes, regulatory requirements, and other factors outside the Company's control.

Category	Year 1	Year 2	Year 3	3-Year Total	% of Raise
GLP Toxicology & IND Submission	\$5,200,000	\$800,000	—	\$6,000,000	15.0%
• GLP Rat Toxicology (28-day/90-day)	\$1,200,000	—	—	\$1,200,000	
• GLP Mini-Pig Toxicology (28-day)	\$1,500,000	—	—	\$1,500,000	
• Pivotal GI-ARS GLP Efficacy Study	\$800,000	—	—	\$800,000	
• cGMP API Manufacture (3 kg batch)	\$1,200,000	—	—	\$1,200,000	
• IND Filing & Regulatory Affairs	\$300,000	\$500,000	—	\$800,000	
Phase 1 Clinical Safety Trial	\$1,500,000	\$5,500,000	\$1,000,000	\$8,000,000	20.0%
• CRO Selection & Contract	\$500,000	—	—	\$500,000	
• Clinical Trial Execution (SAD/MAD)	\$500,000	\$4,500,000	—	\$5,000,000	
• Bioanalytical & PK Analysis	\$200,000	\$400,000	—	\$600,000	
• Clinical Site Infrastructure	\$300,000	\$500,000	—	\$800,000	

• Data Analysis & FDA EoP1 Meeting	—	\$100,000	\$1,000,000	\$1,100,000	
Phase 2 Efficacy & Animal Rule BLA	—	\$3,000,000	\$8,000,000	\$11,000,000	27.5%
• Animal Efficacy (NHP/validated model)	—	\$2,000,000	\$2,500,000	\$4,500,000	
• Clinical PK Bridging Studies	—	\$500,000	\$1,500,000	\$2,000,000	
• BLA/NDA Compilation & Submission	—	—	\$1,500,000	\$1,500,000	
• FDA Advisory Committee Prep	—	\$500,000	\$500,000	\$1,000,000	
• Phase 2 Project Management	—	—	\$2,000,000	\$2,000,000	
CMC — Chemistry, Manufacturing & Controls	\$1,500,000	\$1,500,000	\$1,000,000	\$4,000,000	10.0%
• Process Scale-Up & Validation	\$500,000	\$800,000	\$400,000	\$1,700,000	
• Analytical Method Transfer	\$300,000	\$200,000	—	\$500,000	
• Stability Studies (Accel + LT)	\$200,000	\$300,000	\$300,000	\$800,000	
• Drug Master File (DMF) Prep	\$300,000	\$100,000	—	\$400,000	
• GMP Quality Systems	\$200,000	\$100,000	\$300,000	\$600,000	
Regulatory Affairs & Gov. Biz Dev	\$1,500,000	\$1,500,000	\$1,000,000	\$4,000,000	10.0%
• FDA Regulatory Consulting	\$600,000	\$500,000	\$400,000	\$1,500,000	
• BARDA/DoD Procurement Engagement	\$400,000	\$500,000	\$300,000	\$1,200,000	
• PHEMCE Advocacy & Congressional	\$200,000	\$200,000	\$100,000	\$500,000	
• NATO / Allied Nation Filings	\$200,000	\$200,000	\$100,000	\$500,000	
• Government Affairs & Sole Source	\$100,000	\$100,000	\$100,000	\$300,000	
Corporate Ops, Legal, IP & Working Capital	\$2,300,000	\$2,500,000	\$2,200,000	\$7,000,000	17.5%
• Key Personnel Compensation	\$1,400,000	\$1,650,000	\$1,650,000	\$4,700,000	
• Legal (Covington, Akin Gump, Harness)	\$600,000	\$600,000	\$600,000	\$1,800,000	
• Corporate Maintenance & Insurance	\$150,000	\$150,000	\$150,000	\$450,000	
• Audit / Financial Reporting	\$100,000	\$100,000	\$100,000	\$300,000	
• IP Prosecution & Maintenance	—	—	—	Included above	
TOTAL MAXIMUM OFFERING	\$12,000,000	\$14,800,000	\$13,200,000	\$40,000,000	100.0%

KEY BUDGET ASSUMPTIONS

- Year 1 GLP toxicology costs benchmarked against published industry ranges of \$1.0M–\$1.5M per species for GLP repeat-dose toxicology studies, plus an additional \$0.8M for the pivotal GI-ARS efficacy study and \$1.2M for cGMP API batch manufacture of 3 kg.
- Phase 1 clinical trial costs based on CRO proposal estimates for a single ascending dose / multiple ascending dose (SAD/MAD) safety study in 48–72 healthy volunteers, conducted at 2–3 U.S. clinical sites.

- Phase 2 costs based on Animal Rule precedent programs (Nplate, Leukine); NHP (non-human primate) model costs reflect published rates for IACUC-approved radiation biology studies at AFRRRI-partner facilities.
- CMC costs reflect quotes received from CMO partners for process development and GMP manufacture at kg scale; estimates are conservative pending formal RFP process.
- Personnel compensation benchmarked at the 40th percentile of BioPharma compensation surveys for each position; CEO compensation at \$300,000/year; CFO at \$125,000/year reflecting current stage.
- All costs are expressed in 2026 dollars; no inflation adjustment has been applied to Year 2 and Year 3 figures.

NON-DILUTIVE FUNDING OFFSETS

The following non-dilutive funding sources, if awarded, would reduce the amount of Series A Offering proceeds required for the corresponding workstreams and allow reallocation to accelerate clinical activities or expand the pipeline:

Funding Source	Workstream	Potential Amount	Status
NIH 1U01 Cooperative Agreement	GLP Toxicology / IND-Enabling	\$2.0M–\$5.0M	Application submitted; Priority Score: 30
BARDA OTA Development Agreement	Phase 1 / Phase 2 Co-Funding	\$5.0M–\$20.0M	Engagement planned post-IND
DoD JPEO-CBRND Research Contract	Animal Efficacy Studies	\$2.0M–\$8.0M	Active AFRRRI relationship; formal engagement planned
State of Virginia BMAP Grant	Regulatory Affairs	\$0.5M–\$1.0M	Eligible upon IND filing

There is no assurance that any non-dilutive funding will be awarded. The Company's development plan is fully funded by the Maximum Offering proceeds without any non-dilutive funding assumptions.

EXHIBIT F

SOLE SOURCE JUSTIFICATION MEMORANDUM

SOLE SOURCE JUSTIFICATION MEMORANDUM

Subject: Non-Competitive Procurement — RadShield™ (YK-4-250) GI-ARS Medical Countermeasure

Memorandum Field	Detail
Prepared By	Trocar Pharma, Inc. Management and Government Affairs Advisors
Date	April 2026
Classification	For Investor and Internal Strategy Purposes Only — Not Submitted to Government
Product	RadShield™ (YK-4-250) — Gastrointestinal Acute Radiation Syndrome (GI-ARS) Mitigation Agent
Applicable Legal Authority	FAR 6.302-1 (Sole Source — Only One Responsible Source); 10 U.S.C. § 4022 (OTA); Project BioShield Act
Intended Recipient Agencies	BARDA/HHS; DoD/JPEO-CBRND; DHS/FEMA; Allied Nation Defense Ministries

I. PURPOSE

This memorandum provides the factual, legal, and technical basis for a determination by relevant government contracting authorities that RadShield™ (YK-4-250), developed and held exclusively by Trocar Pharma, Inc., is available from only one responsible source with respect to the requirement described herein, and that the use of any other source would result in substantial duplication of cost, unacceptable delays in fulfilling critical national security requirements, or the loss of irreplaceable technical expertise and data. This memorandum has been prepared for internal government affairs strategy purposes and has not been submitted to or reviewed by any government contracting officer or agency. It does not constitute a government determination of sole source eligibility.

II. DESCRIPTION OF THE GOVERNMENT REQUIREMENT

The United States government, through HHS/BARDA, DoD/JPEO-CBRND, and allied nation defense agencies, requires an orally administered, post-exposure medical countermeasure specifically and clinically validated for Gastrointestinal Acute Radiation Syndrome (GI-ARS) resulting from exposure to ionizing radiation at doses of 6 Gray or higher. The required countermeasure must satisfy all five of the following operational and technical specifications:

- 1. ORAL ADMINISTRATION: Must be orally administered (tablet or suspension) to enable mass-casualty deployment by non-medical personnel without IV access or needle administration equipment;
- 2. POST-EXPOSURE EFFICACY: Must demonstrate statistically significant improvement in survival when administered within 24 hours following radiation exposure at the LD50 dose level;
- 3. VALIDATED GI-ARS ACTIVITY: Must have demonstrated activity specifically against the Gastrointestinal Acute Radiation Syndrome, not merely the Hematopoietic ARS (which is addressed by existing approved agents);
- 4. AMBIENT STORAGE: Must be storable at ambient temperature without cold chain requirements for pre-positioning in military field supplies, national stockpile inventories, and first responder kits;
- 5. ACTIVE FDA REGULATORY PATHWAY: Must be in active development under an IND or Pre-IND regulatory pathway with FDA under the Animal Rule (21 CFR Part 314, Subpart I) for radiation countermeasures.

III. BASIS FOR SOLE SOURCE DETERMINATION

A. Unique Scientific Validation

RadShield™ (YK-4-250) is the only known GI-ARS countermeasure candidate that has achieved all of the following simultaneously: (i) demonstrated 88% survival versus 58% control at the LD50 dose (14.3 Gy in C57BL/6 mice) in U.S. Department of Defense/AFRRI-sponsored studies representing \$4.5 million or more in federally funded research; (ii) completed a Pre-IND meeting with the U.S. Food and Drug Administration with FDA's written feedback on the proposed Animal Rule development program; (iii) validated multiple mechanistic endpoints consistent with GI-ARS mitigation including intestinal crypt survival, DNA repair, mucosal barrier restoration, and bacteremia reduction, all in rigorous DoD-sponsored studies; and (iv) demonstrated efficacy for radiation-induced lung injury, supporting broader ARS applicability.

B. Exclusive Intellectual Property — Georgetown University License

Trocar Pharma, Inc. holds the worldwide exclusive rights to develop, manufacture, use, and commercialize YK-4-250 pursuant to the Georgetown University Exclusive License Agreement (Agreement No. 2022-0493, executed June 29, 2022). No other entity has the legal right to develop, manufacture, or commercialize YK-4-250 for any therapeutic indication without obtaining a sublicense from Trocar Pharma, Inc. Any competing development program using YK-4-250 or substantially similar compounds would require: (i) independent discovery of a different chemical entity with equivalent or superior GI-ARS activity; (ii) years of additional preclinical development and government-sponsored study; and (iii) a separate Pre-IND process with FDA — all of which

would require a minimum of 5–7 additional years before reaching the current development stage of YK-4-250.

C. Oral Delivery — Unique Operational Profile

RadShield™ is an orally administered compound (available as tablet or suspension). All three FDA-approved radiation MCMs — Neupogen (G-CSF), Leukine (GM-CSF), and Nplate (romiplostim) — require subcutaneous or intravenous injection and address only the Hematopoietic ARS syndrome, with no demonstrated activity against GI-ARS. The oral delivery profile of RadShield™ is not merely a convenience feature but a critical operational requirement: in a mass-casualty nuclear or radiological event involving tens of thousands to hundreds of thousands of simultaneously exposed individuals, injection-based administration is logistically infeasible at the required scale. Only an orally administered agent can be pre-positioned in individual first aid kits, administered by non-medical personnel, and deployed in the quantities required for mass-casualty countermeasure use.

D. Existing Government Relationship and Institutional Knowledge

Trocar Pharma has an established collaborative research relationship with AFRI representing more than \$4.5 million in funded studies conducted over multiple years. This relationship has resulted in: the transfer of validated scientific knowledge regarding YK-4-250's mechanism of action and efficacy; the development and validation of animal model protocols specifically adapted for YK-4-250 testing; the accumulation of non-public preclinical data characterizing the compound's safety and efficacy profile; and the establishment of institutional relationships with AFRI scientists, DoD program officers, and procurement personnel who are familiar with RadShield™'s development history. These assets would require years and substantial additional government investment to replicate in a different source.

E. No Comparable Alternative Sources

Based on a comprehensive review of publicly available information regarding GI-ARS countermeasure development programs as of the date of this memorandum, no alternative source has been identified that simultaneously satisfies all five government requirements identified in Section II. Specifically:

- No other GI-ARS countermeasure candidate has completed a Pre-IND meeting with FDA.
- No other GI-ARS countermeasure candidate has achieved the survival results demonstrated by RadShield™ (88% vs. 58% at LD50) in DoD-sponsored studies.
- No other GI-ARS countermeasure is orally administered with an established pharmacokinetic profile in the relevant animal models.
- No other GI-ARS countermeasure candidate has an exclusive university license for the underlying compound patent.
- No currently FDA-approved radiation MCM addresses the GI-ARS syndrome.

IV. ACTIONS TO INCREASE COMPETITION IN THE FUTURE

The contracting officer notes that while the current procurement requirement necessitates a sole source determination based on RadShield™'s unique technical and regulatory qualifications, the government should continue to encourage and fund alternative GI-ARS countermeasure programs through BARDA Broad Agency Announcements, NIH cooperative agreements, and DoD basic

research programs to ensure the emergence of competitive second-generation or complementary agents. In the medium term (5–10 years following RadShield™'s approval), it may become feasible to conduct competitive solicitations for alternative GI-ARS countermeasures. For the immediate national preparedness gap in GI-ARS — which represents an urgent and unmet requirement — Trocar Pharma and RadShield™ represent the only viable near-term source.

V. PRICE REASONABLENESS

The proposed pricing for RadShield™ at \$500 per dose with a treatment protocol of 3–12 doses per person (representing a per-person treatment course cost of \$1,500–\$6,000) is consistent with established government procurement precedent for approved radiation MCMs and other CBRN medical countermeasures. BARDA has historically procured Nplate (romiplostim) at per-course values of approximately \$5,000–\$8,000 for hematopoietic ARS. The proposed RadShield pricing is within this established precedent range and is commensurate with the \$40 million development investment required to bring the product through FDA approval under the Animal Rule.

VI. DISCLAIMER

This Sole Source Justification Memorandum has been prepared by the Company's management and advisors for internal government affairs strategy purposes. It has not been submitted to or reviewed by any government contracting officer, BARDA program officer, or other government official. Government agencies retain full discretion to conduct competitive procurement processes, and any actual sole source determination would require the government's independent analysis, legal review, and compliance with all applicable acquisition regulations, including FAR Part 6 justification and approval procedures. There is no assurance that any government agency will accept this sole source analysis or award a contract on a non-competitive basis.

EXHIBIT G

GOVERNMENT CONTRACTING AND PROCUREMENT APPENDICES

APPENDIX A: U.S. GOVERNMENT CONTRACTING FRAMEWORK

This appendix is prepared for institutional investors, strategic pharmaceutical partners, government-aligned capital providers, and internal investment committees. The materials are intentionally conservative, precedent-based, and aligned with existing U.S. and allied government procurement frameworks. The revenue model for RadShield™ assumes execution within existing statutory frameworks — not the creation of new legislation or speculative emergency appropriations.

A.1 U.S. Department of Health and Human Services (HHS)

Element	Description
Primary Agency	Administration for Strategic Preparedness and Response (ASPR)
Key Operating Division	Biomedical Advanced Research and Development Authority (BARDA)
Supporting Agencies	CDC (Strategic National Stockpile coordination); PHEMCE (interagency coordination)
Legal Authority	Project BioShield Act of 2004; PAHPA (2006); Public Health Service Act § 319F
Procurement Mechanisms	Other Transaction Authority (OTA); Fixed-Price Contracts; IDIQ Contracts; Emergency Use Authorization bridge
FY2024 Budget Priority	Explicitly includes radiation MCMs targeting ARS in ASPR budget justification
Precedent Contract Values	\$200M–\$400M per approved H-ARS MCM (Neupogen, Leukine, Nplate)
Development Funding Precedent	\$100M+ per agent in OTA development funding prior to commercial procurement
SNS Target (GI-ARS)	2,000,000 treatment courses Phase 1 = \$7.0B at mid-pricing (\$3,500/course)

A.2 U.S. Department of Defense (DoD)

Element	Description
Primary Acquisition Authority	Joint Program Executive Office for CBRN Defense (JPEO-CBRND)
Key Medical Authority	Defense Health Agency (DHA) — formulary inclusion required for military distribution
Research Partner	Armed Forces Radiobiology Research Institute (AFRRI) — Trocar has active relationship
Legal Authority	FAR Parts 12 & 15; OTA (10 U.S.C. § 4022); IDIQ Contracts; FFP Post-Approval
Priority Sub-Populations	Nuclear Navy ~22K; Nuclear weapons custodial ~15K; CBRN Units ~35K; Forward deployed ~100K
DoD Procurement Target	\$15.94B for full U.S. military community at mid-pricing (\$3,500/person)
Allied Nation Mechanism	NATO NSPA; Foreign Military Sales (FMS); Direct Commercial Sales (DCS)
Budget Cycle	Future Years Defense Program (FYDP) — 2-3 year advance planning required

A.3 DHS/FEMA — First Responder Market

Element	Description
Primary Grant Program	Homeland Security Grant Program (HSGP) — annual federal grants to states
Targeted Urban Program	Urban Areas Security Initiative (UASI) — 30 highest-risk metropolitan areas
Federal AEL Inclusion	FEMA Authorized Equipment List — required for grant-funded purchase by state/local agencies
Direct Federal Procurement	GSA Schedule / FAR Part 12 — for federal law enforcement and emergency agencies
First Responder Target	\$6.90B for career/professional first responders (1.97M) at mid-pricing

APPENDIX B: BARDA AND DOD PRECEDENT CASE STUDIES

Case Study 1: Nplate (Romiplostim) — H-ARS Radiation Countermeasure

Nplate, developed by Amgen, received FDA approval under the Animal Rule in 2021 for Acute Radiation Syndrome affecting the blood system (H-ARS). The development and procurement timeline is directly analogous to RadShield's projected pathway:

Phase	Nplate Precedent	RadShield Parallel
Initial Government Engagement	BARDA OTA development agreement — preclinical stage	Trocar/AFRRI active collaboration; BARDA engagement planned post-IND
Development Funding	\$100M+ in BARDA-funded development over 5+ years	NIH 1U01 + BARDA OTA target following IND filing
Regulatory Approval	FDA Animal Rule — 2021	RadShield targeting ~2028–2029
Initial Procurement	SNS fixed-price contract post-approval	SNS Phase 1 target: 2,000,000 courses = \$7.0B
Pricing	\$5,000–\$8,000 per treatment course	RadShield: \$1,500–\$6,000 per treatment course
Competitive Position	First approved for platelet support in H-ARS	First and only oral GI-ARS countermeasure

Case Study 2: Anthrax Antitoxin (Raxibacumab) — Project BioShield Precedent

Raxibacumab (ABthrax), developed by GlaxoSmithKline, received FDA approval under the Animal Rule in 2012 for inhalational anthrax — a directly analogous government-only market MCM development pathway. BARDA invested approximately \$400 million in development funding and initial SNS procurement contracts, demonstrating the agency's capacity to invest at the nine-figure scale in Animal Rule-approved products with government-only markets. The raxibacumab program's financial structure — cost-reimbursable OTA development funding transitioning to fixed-price SNS procurement contracts upon approval — is the template for RadShield's anticipated commercial pathway.

Case Study 3: COVID-19 MCM Program — Procurement Timeline Benchmark

BARDA's COVID-19 MCM procurement program demonstrated the agency's ability to move from OTA development agreement to initial fixed-price procurement contract within 12–18 months of Emergency Use Authorization, with initial contracts ranging from \$500 million to \$2 billion. While COVID-19 MCMs operated under different regulatory and market dynamics than radiation countermeasures, this precedent establishes BARDA's operational capacity to execute large-scale, rapid procurement contracts when national security requirements demand it. RadShield's anticipated post-approval procurement timeline of 12–24 months to first SNS contract is consistent with this precedent.

APPENDIX C: PROCUREMENT MILESTONE TIMELINE

Phase	Milestone	Timeline	Action	Capital Implication
Current (Pre-IND)	GLP Toxicology & IND-Enabling	Months 1–15	Series A-funded; BARDA pre-solicitation meetings; NIH 1U01 pursuit	Series A proceeds deployed
IND Filing	IND Submission to FDA	Month 12–15	Formal BARDA OTA BAA application; JPEO-CBRND engagement initiated	BARDA co-funding potential unlocked
Phase 1	Safety Trial Initiation & Completion	Month 15–30	BARDA OTA development contract potential; DoD IDIQ contract negotiation	Non-dilutive co-funding may offset Series A spend
Phase 2	Pivotal Efficacy & BLA Filing	Month 30–54	Manufacturing scale OTA; initial SNS procurement agreement negotiation	Revenue visibility established; Series B planning
Approval	FDA Animal Rule Approval	Month 54–66	Fixed-price SNS contract award; DoD IDIQ delivery orders	MAJOR revenue inflection — \$650M Year 1
Post-Approval	Replenishment + Allied Nations	Year 6+	Multi-year SNS contracts; DoD IDIQ; NATO FMS/DCS	Recurring ARR: \$2.5B+ U.S. / \$5.5B+ global

APPENDIX D: REGULATORY AND CONTRACTING MILESTONE ALIGNMENT

Regulatory Phase	FDA Milestone	Government Contracting Action	IP/Legal Milestone	Capital Event
IND-Enabling	GLP Tox complete	BARDA pre-solicitation; DoD engagement	Patent maintenance; sublicense strategy	Series A deployment
IND Active	IND filed; FDA 30-day review	OTA BAA application; PHEMCE strategy memo	Georgetown milestone payment	NIH 1U01 award potential
Phase 1 Complete	End-of-Phase 1 meeting	OTA development contract award	Polymorph/formulation IP filing	BARDA co-investment
Phase 2 Complete	BLA/NDA filed	Manufacturing scale contract; initial SNS agreement	Patent portfolio review	Series B raise for CMO scale
FDA Approval	Animal Rule NDA/BLA approved	Fixed-price SNS procurement; DoD IDIQ	License compliance confirmed	Revenue launch: \$650M Year 1
Post-Approval	Lot release; replenishment cycle	IDIQ delivery orders; allied FMS	International patent prosecution	Recurring ARR established

APPENDIX E: INVESTOR INVESTMENT COMMITTEE MEMORANDUM SUMMARY

Investment Thesis

This opportunity represents a late-stage national security pharmaceutical asset positioned for government-backed commercialization with significant strategic upside. RadShield™ (YK-4-250) is the only orally administered compound in active development with demonstrated DoD-validated preclinical efficacy against GI-ARS, an exclusive Georgetown University license, completed Pre-IND FDA interaction, and an established government research partnership. The \$40 million Series A Offering is precisely sized to fund the critical de-risking milestones — GLP toxicology, IND submission, and Phase 1/2 clinical trials — that represent the largest step-change in regulatory and commercial risk reduction.

Key Strengths

- Statutory government demand under Project BioShield Act — not discretionary spending
- Sole-source procurement position supported by unique technical, IP, and operational profile
- Government end-customer has already invested \$4.5M+ in the compound's preclinical validation
- Three Animal Rule precedent approvals provide clear regulatory pathway with reduced uncertainty
- Oral delivery is an operational requirement, not a preference — no injection-based alternative exists for mass-casualty GI-ARS
- Georgetown exclusive license creates absolute IP barrier to direct competition in YK-4-250

- NIH 1U01 Priority Score of 30 indicates non-dilutive funding potential to supplement Series A
- First-pass IP valuation of ~\$76B (preliminary; under formal review by patent counsel) suggests substantial long-term licensing upside

Risk Factors Acknowledged

- Clinical stage — no revenue; operating losses for foreseeable future
- Regulatory approval not guaranteed even with strong preclinical data
- Government procurement timelines are long (12–36 months post-approval) and subject to budget cycles
- Manufacturing scale-up from clinical to commercial quantities involves significant execution risk
- Concentration risk — single product candidate
- Dual-class voting structure gives Founder total voting control regardless of Series A equity position

Return Profile

Scenario	Assumed Outcome	Estimated MoIC	Time to Liquidity
Base Case	FDA approval; SNS Phase 1 contract; DoD procurement; strategic acquisition	5× – 7×	6–8 years from Series A close
Upside Case	Accelerated approval; full SNS build; allied procurement; pharma IPO	8× – 12×+	4–6 years from Series A close
Downside Case	Phase 2 failure; no FDA approval; license termination	0× – 0.5×	Indefinite / wind-down

Recommendation: Proceed to advanced diligence and structured capital deployment. The combination of DoD validation, exclusive IP, oral delivery differentiation, and clear government procurement pathway makes this one of the more compelling pre-approval national security pharmaceutical opportunities currently available to private capital.

EXHIBIT H

FINANCIAL PROJECTIONS MODEL OUTPUTS — ONE-PAGE SUMMARY

FINANCIAL PROJECTIONS SUMMARY

IMPORTANT: The following financial projections are forward-looking estimates based on publicly available government data, published demographic sources, pharmaceutical market sizing methodologies, and management assumptions. They are not guarantees, representations, or warranties of future performance. Actual results may differ materially. Investors should carefully review the Risk Factors section of the Memorandum before relying on any projections. Full model with assumptions available under NDA.

VALUATION SUMMARY

Metric	Base Case	Upside Case	Key Assumption
7-Year DCF Enterprise Value	\$13.7B – \$20.5B	\$49.8B – \$74.2B	Base: \$2,000/course avg; Upside: \$4,000/course avg
Risk-Adjusted EV (10% prob)	\$6.8B – \$10.3B	\$2.5B – \$3.7B (5%)	Probability weighting reflects pre-Phase 1 stage
2028 Projected Revenue	\$5.4B (53% EBITDA)	\$15.6B (64% EBITDA)	Post-approval Year 2 revenue
WACC Applied	10.4% – 12.4%	10.4% – 12.4%	Reflects clinical-stage pharmaceutical risk premium
Exit EBITDA Multiple	9× – 11×	9× – 11×	Consistent with pharma MCM acquisition comparables
IP Valuation (Preliminary)	~\$76B (under formal review)	Per-indication licensing TBD	First-pass; patent counsel review in progress

10-YEAR GOVERNMENT PROCUREMENT REVENUE MODEL

Mid-dose scenario: \$3,500 average per person (7-dose treatment course). Year 1 = post-FDA approval/EUA.

Year	SNS/Stockpile	U.S. Military	U.S. First Resp.	Allied Nations	Annual Total	Cumulative
Year 1	\$350M	\$150M	\$50M	\$100M	\$650M	\$650M
Year 2	\$1.20B	\$600M	\$300M	\$400M	\$2.50B	\$3.15B
Year 3	\$1.50B	\$1.20B	\$700M	\$800M	\$4.20B	\$7.35B
Year 4	\$1.20B	\$1.80B	\$1.00B	\$1.20B	\$5.20B	\$12.55B
Year 5	\$800M	\$2.00B	\$1.30B	\$1.50B	\$5.60B	\$18.15B
Year 6	\$700M	\$1.50B	\$1.00B	\$1.30B	\$4.50B	\$22.65B
Year 7	\$700M	\$1.20B	\$900M	\$1.20B	\$4.00B	\$26.65B
Years 8–10	\$1.80B	\$3.00B	\$2.40B	\$2.70B	\$9.90B	\$36.55B
10-YR TOTAL	\$8.25B	\$11.45B	\$7.65B	\$9.30B	\$36.65B	

MARKET SIZING FRAMEWORK

Market Tier	Courses	Low (\$1,500)	Mid (\$3,500)	High (\$6,000)	Timeline
Global TAM (Initial)	~18.7M	~\$28.0B	~\$65.4B	~\$112.1B	Long-term
Global TAM (Full)	~29.6M	~\$44.4B	~\$103.5B	~\$177.5B	Long-term
SAM (Post-Approval)	—	—	~\$54.3B	—	5–10 years
SOM Phase 1 (Priority)	—	—	~\$14.2B	—	Years 1–4
Steady-State ARR	—	—	\$5.5B/yr	—	Year 7+

KEY MODEL ASSUMPTIONS

Assumption	Value	Source/Basis
Base pricing per dose	\$500	Consistent with approved H-ARS MCM pricing; within BARDA procurement precedent range
Treatment courses	3–12 doses; average 7 (mid-scenario)	Product label to be confirmed in Phase 2; range reflects clinical protocol
Year 1 revenue	Post-FDA approval/EUA	Year 0 = approval year; Year 1 revenue assumes initial contract awards
Military community size	4.9M persons (all components)	DMDC data; includes active, reserve, DoD civilians, DEERS dependents
Allied nation market	\$35.6B total initial procurement	NATO, Five Eyes, Indo-Pacific allies; detailed country-by-country analysis in main body
EBITDA margin (Base)	53%	Low manufacturing COGS for small molecule oral API at commercial scale
Annual replenishment rate	20–25% of stockpile/year	Based on shelf-life assumptions; data to be established in stability studies

EXHIBIT I

TROCAR PHARMA, INC. — Q1 2025 PROGRESS REPORT

Q1 2025 PROGRESS REPORT

Trocar Pharma, Inc. | Confidential — For Investor Review Only | Date of Report: April 2025

I. NIH 1U01 COOPERATIVE AGREEMENT GRANT PROGRESS

The Company submitted a 1U01 cooperative agreement application to the National Institutes of Health (NIH) for funding of IND-enabling milestone activities. The application received a Priority Score of 30 from the NIH Study Section review panel, indicating that the application was reviewed favorably and falls within the fundable range for this program cycle. A Priority Score of 30 corresponds to approximately the top 10–15th percentile of reviewed applications in competitive NIH grant programs.

The Company is actively responding to reviewer comments and preparing the Just-In-Time (JIT) documentation package requested by the NIH for applications under active consideration for funding. Key areas of reviewer interest include: (i) the specific GLP toxicology study design and timeline; (ii) the proposed IND submission content and regulatory strategy; and (iii) the relationship between non-clinical data generated to date and the FDA Animal Rule efficacy requirements. An NIH 1U01 award would provide non-dilutive federal funding of \$2 million to \$5 million for GLP toxicology and IND submission activities, preserving Series A capital for clinical trial activities. There is no assurance that such an award will be made.

II. BOARD EXPANSION — STRATEGIC MILITARY LEADERSHIP

To bridge the gap between clinical validation and federal procurement, Trocar Pharma is actively recruiting a high-ranking retired U.S. Army General or Navy Commander to the Board of Directors.

The intended appointment would provide: (i) strategic oversight for navigating the DoD acquisition landscape, including the JPEO-CBRND acquisition cycle and DoD MCM procurement processes; (ii) relationships with current DoD leadership and Pentagon staff relevant to CBRN Medical Countermeasure procurement; (iii) credibility in BARDA and Congressional engagement regarding the strategic importance of the GI-ARS countermeasure gap; and (iv) expertise in force protection requirements, large-scale military logistics, and dual-use medical technology policy.

The Company has identified several candidates with relevant military medicine, CBRN defense, and defense acquisition backgrounds and is in active discussions. An announcement is anticipated during 2025.

III. NON-DILUTIVE VALUE CREATION — RESEARCH COLLABORATION SUMMARY

Partner	Collaboration Type	Deliverable	Status	Value Created
Virginia Commonwealth University (VCU)	Crystal / Polymorph Studies	Solid-form characterization; IP-protectable crystal forms identified	Completed	Manufacturing stability; polymorph IP protection; IND-readiness
TCG GreenChem	Solubility / Stability Studies	Formulation options for oral dosage form; solubility profile established	Completed	IND formulation de-risking; bioavailability data for PK modeling
Old Dominion University (ODU)	Pharmacokinetic Studies	Single-dose PK in C57BL/6 mice; bioanalytical assay development	Ongoing	Non-dilutive PK data; dosing rationale for IND
AFRRI / DoD	GI-ARS Model Studies	Continued mechanistic and efficacy studies in validated models	Ongoing	Federal countermeasure validation; ongoing government relationship maintenance
Internal / Strategic	Market Analysis	10-indication pipeline mapping; TAM expansion to \$76B+ IP licensing estimate	Completed	Investment thesis expansion; pipeline diversification narrative

IV. MARKET ANALYSIS AND PIPELINE DIVERSIFICATION

The Company completed an extensive market assessment identifying a total of ten additional clinical indications for the YK-4-250 platform beyond the lead GI-ARS indication. These additional indications reflect the broad applicability of the ACE2/RAS mechanism across multiple disease states with significant unmet medical need:

Additional Indication	Mechanism Basis	Market Size	Development Priority
Inflammatory Bowel Disease (IBD)	ACE2 upregulation / anti-inflammatory via RAS	\$20B global market	High — NIH 1U01 includes IBD endpoints

Radiation-Induced Pulmonary Fibrosis	ACE2/TGF- β anti-fibrotic pathway	\$2.6B SOM (100K U.S. patients)	High — AFRRF lung studies completed
Colon Cancer (Antiproliferative)	Ang II / AT1 receptor cell proliferation	\$15B+ global market	Medium — GMU studies completed
Medical Radiation Protection (Oncology)	GI and bone marrow protection during RT	\$30B+ global RT market	Medium — label expansion post-approval
Alzheimer's Neuroinflammation	ACE2 / neuroinflammation pathway	\$15B+ global market	Lower — preclinical signal only
PTSD / Anxiety	RAS / stress-response axis	\$10B+ market	Lower — early signal
Hypertension (Protective Mechanism)	ACE2 cardioprotective effects	Existing market	Lowest — off-label potential
Space Radiation Protection	GI-ARS / H-ARS from cosmic radiation	Emerging — NASA/commercial	Medium-term — strategic partnership
Neonatal Hypoxic-Ischemic Encephalopathy	ACE2 neuroprotection	Orphan indication	Long-term
Necrotizing Enterocolitis (Neonatal)	Intestinal mucosal protection	Orphan indication	Long-term

V. CAPITAL RAISE STATUS AND INVESTOR ENGAGEMENT

As of Q1 2025, the Company's capital raise advisors had engaged 37 institutional investors across multiple rounds of outreach. Feedback was systematically compiled and categorized into areas requiring enhanced disclosure (incorporated into the current Memorandum) and areas of validated investor interest. Key themes:

Investor Heartburn Issues (Addressed in This Memorandum):

- Early losses and negative cash flow — addressed through detailed 3-year budget and development timeline
- High operating expenses — addressed through detailed personnel budget at 40th-percentile benchmarks
- Government contract uncertainty — addressed through Appendix G and Sole Source Justification Memorandum
- Regulatory pathway length and risk — addressed through FDA Animal Rule precedent analysis (Exhibit D)
- Concentration risk on RadShield — addressed through pipeline diversification narrative (Exhibit I, Section IV)
- Manufacturing scalability — addressed through CMC section and budget detail (Exhibit E)

Investor Strong Points (Validated by Market):

- 88% preclinical survival result — consistently the most compelling single data point
- First-in-class oral GI-ARS status — no direct competitors in this indication/delivery combination
- Government as strategic buyer — de-risks commercial uncertainty

- Expert leadership team — Georgetown, DoD, Johns Hopkins, Morgan Stanley, J.P. Morgan backgrounds
- \$76B preliminary IP valuation — creates significant upside optionality beyond government procurement

VI. GOVERNMENT INTERACTION UPDATES

NIH 1U01 Priority Score of 30 received — favorable for funding consideration in upcoming review cycle.

BARDA Broad Agency Announcement (BAA) review ongoing — Company preparing formal application for submission following IND filing. Engagement with BARDA program officers established.

Pentagon / CENTCOM engagement identified through Congressman Steny Hoyer's support letter — ongoing government affairs strategy development.

Warfighter resource funding announcement for medical countermeasures being monitored — BARDA allocation for GI-ARS programs anticipated in future budget cycles.

Company preparing for formal JPEO-CBRND engagement meetings to be scheduled following IND submission, based on AFRRI relationship introduction.

EXHIBIT J

COMPETITIVE ANALYSIS AND PHARMACEUTICAL COMPARABLES PACKAGE

COMPETITIVE ANALYSIS — RADIATION MCM MARKET

Section 1: Approved Radiation MCMs — Current Competitive Landscape

Three FDA-approved radiation medical countermeasures exist as of the date of this Memorandum. All three address the Hematopoietic ARS (H-ARS) syndrome exclusively and require injection for administration. None addresses Gastrointestinal ARS (GI-ARS). All three are therefore complementary to, not competitive with, RadShield™.

Product	Developer	Indication	Route	FDA Approval	Mechanism	Key Limitation vs RadShield
Neupogen (filgrastim, G-CSF)	Amgen	H-ARS	Subcutaneous injection	2015 (Animal Rule)	Stimulates neutrophil recovery	No GI coverage; injection only; no oral form; cold chain
Leukine (sargramostim, GM-CSF)	Partner Therapeutics	H-ARS	SC or IV injection	2018 (Animal Rule)	Stimulates myeloid recovery	No GI coverage; injection only; IV access required
Nplate (romiplostim)	Amgen	H-ARS (platelets)	Subcutaneous injection	2021 (Animal Rule)	Stimulates platelet production	Platelet-only; no GI coverage; injection; cold chain
RadShield™ (YK-4-250)	Trocar Pharma	GI-ARS (FIRST)	ORAL	In Development	ACE2 upregulation; multi-pathway GI and	Novel — only current oral GI-ARS candidate

					systemic protection	with DoD validation
--	--	--	--	--	---------------------	---------------------

Section 2: Pipeline GI-ARS Candidates — Known Development Programs

Candidate	Developer	Indication	Route	Stage	DoD Validation	IP Status	vs. RadShield
BIO 300	Humanetics Corp	Radiation protection (H-ARS primary)	Oral capsule	Phase 2 (H-ARS)	AFRRI studies	Proprietary	Different mechanism; H-ARS focus; no exclusive university license; soybean isoflavone compound
CBLB502 / Entolimod	Cleveland BioLabs (Humanigen)	H-ARS / radiation protection	SC injection	Advanced preclinical / early clinical	DoD studies	Proprietary	Injection required; H-ARS primary; limited GI-specific data published; does not meet oral delivery requirement
Various investigational agents	Academic / government labs	GI-ARS research	Various	Preclinical only	Limited	University-owned	No exclusive commercial license; years behind RadShield's development stage; no Pre-IND FDA interaction

Section 3: RadShield Competitive Moat Analysis

Competitive Factor	RadShield™ Position	Threat Level	Mitigation
GI-ARS Efficacy	Only compound with \$4.5M+ DoD-validated 88% survival at LD50	LOW — no comparable data exists	Sole Source Justification; AFRRI relationship deepens moat
Oral Delivery	Only oral GI-ARS candidate with DoD validation	LOW — operational requirement favors oral	Formulation IP; ambient stability target in CMC program
Georgetown Exclusive License	Worldwide exclusive — blocks all YK-4-250 commercialization	LOW — legally protected	License maintenance; sublicense strategy
FDA Pre-IND Completion	Pre-IND meeting completed; Animal Rule pathway confirmed	MEDIUM — competitors can	5+ year first-mover advantage in development timeline

		initiate own Pre-IND	
DoD/AFRRI Relationship	\$4.5M+ relationship; direct pathway to procurement officers	MEDIUM — relationships can be built by competitors	Formalize into OTA/IDIQ during clinical phase
Time to Market	~5 years to approval; competitors minimum 7–10 years	MEDIUM — large pharma resources could accelerate	Sole source procurement likely before any competitor reaches market

Section 4: Pharmaceutical Transaction Comparables

The following precedent transactions in the radiation MCM and national security pharmaceutical space provide context for RadShield's valuation and exit potential:

Transaction	Year	Buyer	Seller	Asset/Stage	Deal Value	Valuation Basis
Nplate SNS Procurement	2021+	U.S. Government (BARDA)	Amgen	Approved H-ARS MCM	\$200M–\$400M+	Government contract; per-course pricing within SNS allocation
Leukine Development + Procurement	2018+	U.S. Government (BARDA)	Partner Therapeutics	Approved H-ARS MCM	\$100M dev + \$200M+ procurement	Animal Rule approval pathway; SNS fixed-price contract
BioShield Program (Anthrax)	2004–2012	U.S. Government (HHS)	Various	Emergency MCM (Project BioShield)	\$900M+ total	Statutory authorization; sole source for approved agents
CBLB502 / Humanigen	2012–2019	DoD / BARDA	Cleveland BioLabs	Radiation protection — preclinical to Phase 2	\$40M+ development	OTA development agreement; military MCM program
Emergent BioSolutions Anthrax	Ongoing	U.S. Government	Emergent BioSolutions	Anthrax vaccine/therapeutic stockpile	\$500M+/yr cumulative	SNS replenishment contracts; critical infrastructure MCM

Section 5: Strategic Acquirer Analysis

Upon FDA approval, RadShield™ would represent an attractive acquisition target for major pharmaceutical companies and defense contractors with strategic interest in CBRN medical countermeasures, government procurement franchises, and the radiation MCM market. Potential strategic acquirer categories include:

Acquirer Category	Representative Names	Strategic Rationale	Est. Valuation Multiple
-------------------	----------------------	---------------------	-------------------------

Large-Cap Pharma (MCM Platform)	Emergent BioSolutions; SIGA Technologies; Bavarian Nordic	Expand government MCM portfolio; add GI-ARS to H-ARS platform; SNS franchise growth	8×–12× forward revenue
Defense Prime Contractors	Leidos; SAIC; Booz Allen Hamilton; Palantir (Health)	Force protection technology; JPEO-CBRND relationships; dual-use pharmaceutical capabilities	Strategic premium; 10×–15× EV/Revenue
Big Pharma (Radiation Oncology)	AstraZeneca; Bristol-Myers Squibb; Merck	Radiation oncology side-effect mitigation market; IBD pipeline synergies; government procurement entry	7×–10× revenue; specialty premium
Sovereign Wealth / Allied Nation Government	UAE, Saudi Arabia, Japanese, South Korean defense investment vehicles	National stockpile control; technology sovereignty; domestic pharmaceutical capability	Strategic premium over financial buyer
Private Equity (Healthcare Focus)	KKR; Blackstone Life Sciences; Deerfield	Government contract ARR base; IP licensing optionality; clinical stage entry price	4×–6× EV at clinical stage; 8×+ post-approval

DISCLAIMER: The comparables and acquirer analyses presented in this Exhibit are for informational purposes only and do not constitute a prediction that any such transaction will occur, or that RadShield™ will achieve comparable valuations. All financial projections are forward-looking and subject to significant uncertainty. Investors should carefully review the Risk Factors section of the Memorandum.