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# **ASP Isotopes Inc. Series Seed Investment in IsoBio, Inc.**

July 2025

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## Forward-Looking Statements

In order to help you to better understand the medical isotopes business of ASP Isotopes Inc. - where we have been and where we want to go – and the business of IsoBio, Inc. (which today is a nascent business but we believe has great potential), my remarks today (and the remarks of other officers of ASP Isotopes Inc. and others who will speak or respond to questions) will include forward-looking statements relating to anticipated financial performance, future operating results, business prospects, new products, and similar matters. These statements represent our best judgment, based upon present circumstances and the information now available to us, of what we think may occur in the future - and, of course, it is possible that actual results may differ materially from those we envision today.

For a more complete discussion on the subject of forward-looking statements, including a list of some of the risk factors that might adversely affect operating results, I refer you to the section entitled “*Special Note Regarding Forward-looking Statements*” which appears in the ASP Isotopes Inc. annual report on Form 10-K as filed with the Securities and Exchange Commission (SEC) and Appendix A attached to this presentation.

## Disclaimer

The information set forth in this presentation regarding IsoBio, Inc. is the work product of IsoBio, Inc. and has been furnished to ASP Isotopes Inc. for inclusion herein in order to help you to better understand the business and strategy of ASP Isotopes Inc. with respect to medical isotopes and nuclear medicine services. The information in this presentation regarding IsoBio, Inc. is deemed to be reliable but has not been independently verified by ASP Isotopes Inc.

Nothing in this presentation should be construed as an offer to sell or a solicitation of an offer to buy any securities of ASP Isotopes Inc. or IsoBio, Inc.

## IsoBio seeks to develop novel radiotherapeutics from antibodies with proven mechanisms of action

- Radioligand pharmaceuticals (RLTs) have recently demonstrated remarkable efficacy leading to FDA approvals and have significant untapped potential as novel treatments, but challenges around isotope supply have hindered progress for this emerging class of therapies
- IsoBio plans to leverage the technology and manufacturing capabilities developed by ASP Isotopes Inc. (ASPI) to reduce the uncertainty of isotope supply chain/manufacturing and develop novel isotopes for radiotherapeutics and associated diagnostics
- As a therapeutics company, IsoBio intends to develop monoclonal antibody-isotope conjugates (AICs™) against derisked targets with proven antibodies for solid tumors and hematologic malignancies to improve survival rates in cancer patients
- IsoBio may also partner with large cap pharma companies to advance their antibody candidates with reliable access to isotopes and in-house CMC expertise
- IsoBio also intends to partner with PET Labs to build out novel isotope manufacturing in the United States

## Vision

IsoBio seeks to develop a pipeline of antibody-isotope conjugates (AICs), a new class of radiotherapeutics, using ASPI manufactured isotopes

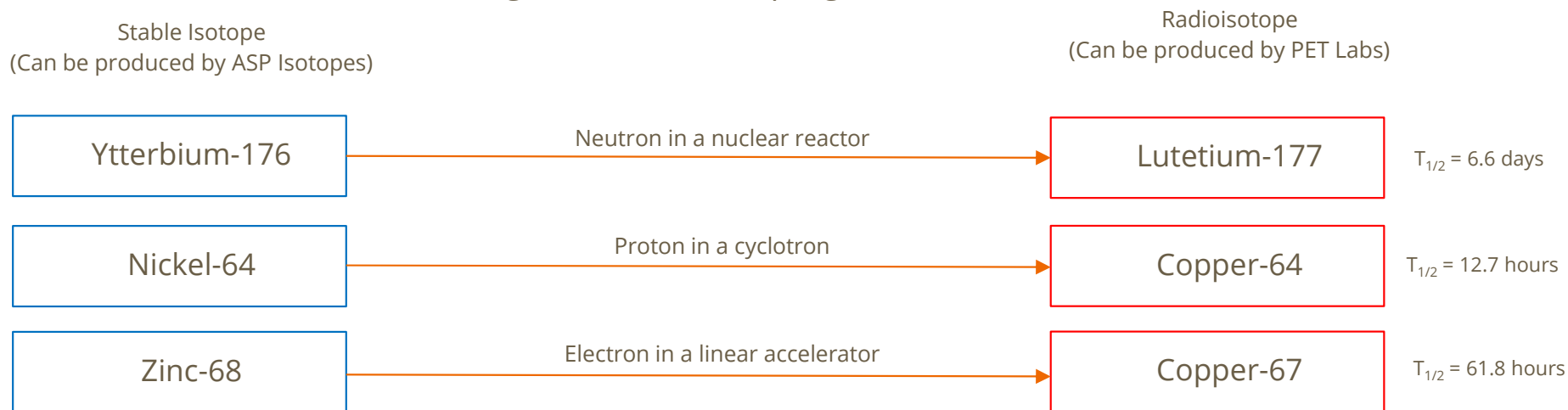
AICs are monoclonal-based RLTs using validated antibodies directed to well-known targets conjugated to isotopes best suited to each tumor type while minimizing off-target toxicities

## RLTs are emerging as a promising new therapeutic modality, but significant manufacturing challenges persist

- The approval of Lutathera (Novartis) and Pluvicto (Novartis) have provided strong evidence that radioligand therapeutics can be highly effective in the treatment of certain tumors
- The growing pipeline of additional RLTs along with recent M&A activity confirms the growing enthusiasm of the field and the potential of this approach to treat many different tumor types
- Supply chain is critical – clinical development and commercial progress has been constrained by limited supply of the required isotopes
  - Inability to source sufficient lutetium-177 has created multiple recent shortages of both Lutathera and Pluvicto
  - Enrollment in late stage clinical trials has been delayed in the past year due to supply chain challenges for actinium-225
- While emerging companies are working to secure the required supply chain, there are practical limitations to current isotope manufacturing that will continue to limit availability
- Development of novel isotopes has been limited due to resource constraints
- IsoBio's vision is to develop a pipeline of mAb-based RLTs targeting both derisked and novel tumor antigens for patients in need of new therapies

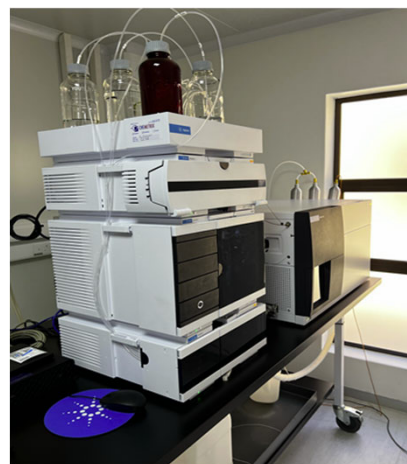
# Fully integrated supply chain from ASP Isotopes ensures robust isotope synthesis and access to an array of possible therapeutic isotopes

- ASP Isotopes has the ability to make stable isotopes using its proprietary technologies: Aerodynamic Separation Process and Quantum Enrichment
- These stable isotopes can be converted into Radioisotopes using either a proton, neutron or an electron at PET Labs, a subsidiary of ASP Isotopes. (Examples shown below)
- PET Labs is a leading supplier of PET radioisotopes and expects to be FDA licensed in late 2025 for supply to US markets
- Plans for commercial manufacturing in the US are in progress



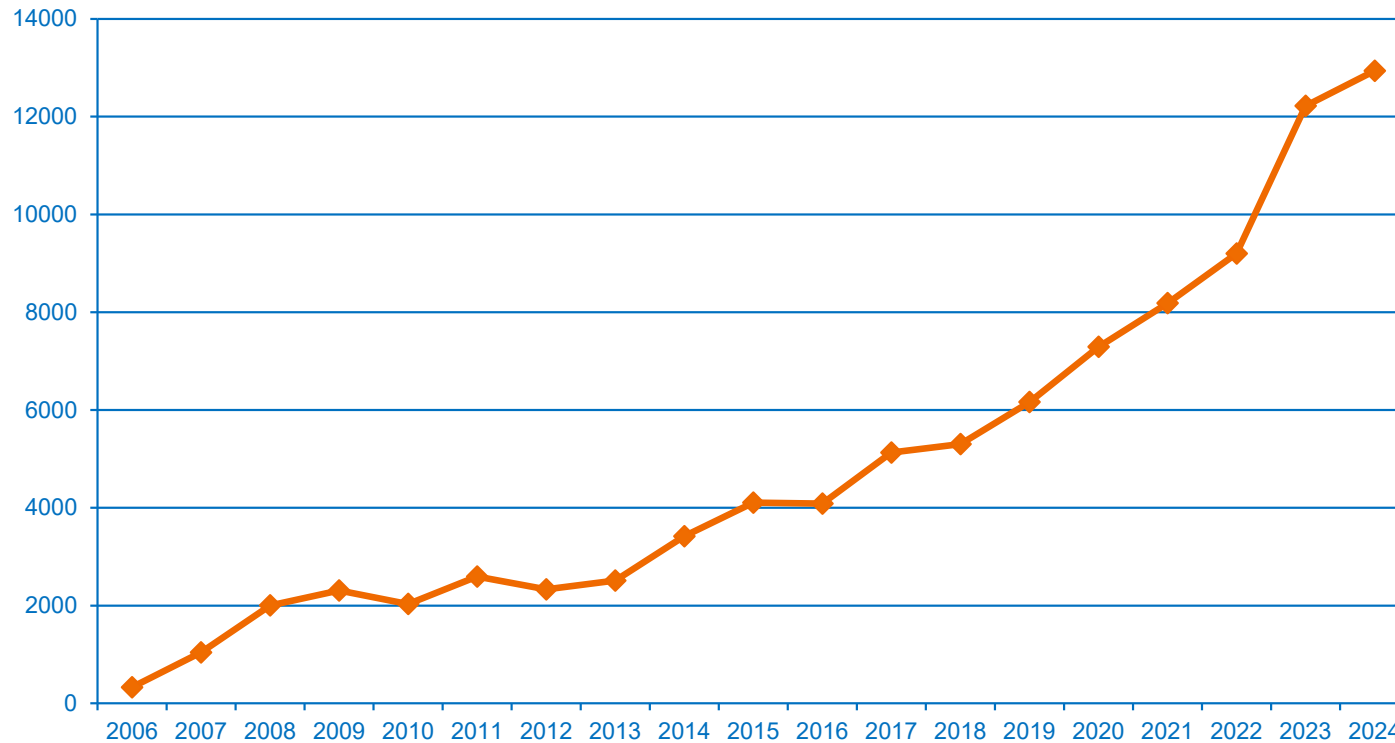
# PET Labs – a leading supplier of PET radioisotopes

- ASP Isotopes has a majority stake in PET Labs, which focuses on isotope manufacturing for pharmaceutical use
- PET Labs supplies approximately 85% of PET Radioisotopes in Sub Saharan Africa
- PET Labs has multiple cyclotrons (protons) and has access to nuclear reactors (neutrons) and linear accelerators (electrons)
- Currently produces  $^{18}\text{F}$ -FDG,  $^{18}\text{F}$ -DOPA,  $^{18}\text{F}$ -PSMA,  $^{18}\text{F}$ MISO,  $^{18}\text{F}$ -FET,  $^{18}\text{F}$ -FES,  $^{18}\text{F}$ -FDAZ,  $^{99}\text{Tc}$  and expects to expand to  $^{177}\text{Lu}$  and  $^{68}\text{Ga}$  in 2025
- PET Labs has GMP manufacturing, microbiology, analytical testing, chemical synthesis
- PET Labs has over 30 employees. Approximately 15% have PhDs and 70% have advanced degrees





# Radioactive doses dispensed per year by PET Labs



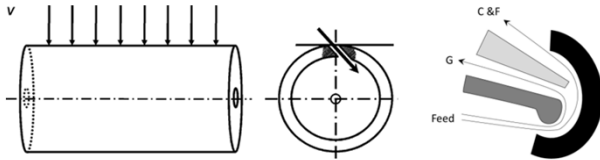
# ASP Isotopes' proprietary stable isotope production capabilities

- ASP Isotopes has the ability to make stable isotopes using its proprietary technologies: Aerodynamic Separation Process and Quantum Enrichment.
- Russia is responsible for the production of 85% of stable isotopes. ASP Isotopes' proprietary technologies are both low cost, efficient methods of producing stable isotopes.
- ASP Isotopes has over 150 employees. Approx 20% have PhDs and 50% have advanced degrees

1

## Aerodynamic Separation Process (ASP)

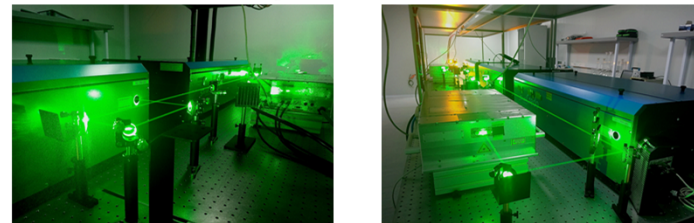
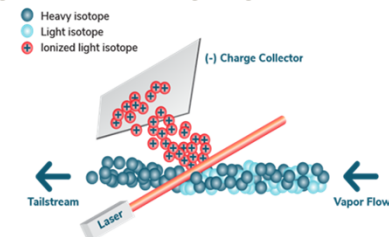
The Aerodynamic Separation Process utilizes gaseous diffusion via a stationary wall centrifuge paired with proprietary flow directors to separate isotopes of varying levels of atomic mass.



2

## Quantum Enrichment (QE)

Quantum enrichment technology employs precisely tuned lasers and quantum mechanical principles to efficiently separate isotopes based on their unique transition energies, achieving high selectivity for most elements.



# IsoBio can benefit from the lower cost of isotope production and planned expansion of ASP Isotopes' manufacturing capacity and global footprint

1



## Cost-Effective

Isotope enrichment facilities using ASPI's technology can be constructed at a fraction of capital cost and time vs. traditional isotope separation facilities

2



## Modular, Scalable Design

The plants can be small in footprint and modular in design, allowing for capacity expansion and growing demand; potential for manufacturing expansion into US in partnership with ASP Isotopes

3



## Environmentally Friendly

ASPI's enrichment plants are designed to harvest and enrich a natural mix of isotopes, producing zero waste (not radioactive or any other waste in any form)

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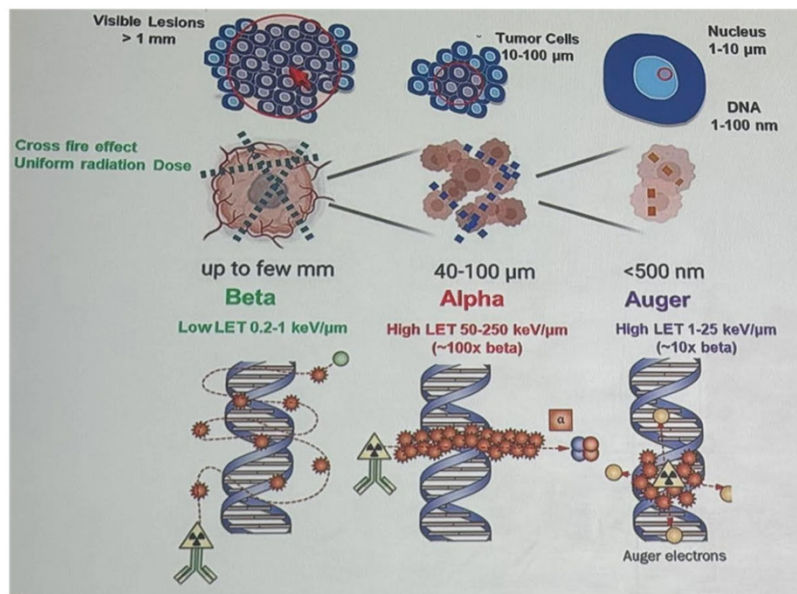


## Broad Reach

ASPI is expanding with multiple planned manufacturing sites to address global demand and develop novel radioisotopes

# Increasing the absorbed dose enhances efficacy of RLTs while minimizing off-target toxicity; AICs in combination with new isotopes may achieve this






Increase the radiation dose delivery to tumor  
DNA damage (SSB, DSB) incidence is proportional to the absorbed dose



Adapted from:

1. Pouget JP, *et al.* Nat Rev Clin Oncol. (2011), 8(12):720-34.
2. Trejtnar F, *et al.* Nucl Med Biol. (2025), 144-145:108998.
3. Bolcaen J, *et al.* Theranostics. (2021), 11(16):7911-7947.

## IsoBio Pipeline

				Discovery	Lead Optimization	Clinical Trial
	Antibody/Target	Isotope	Indication(s)			
Iso-001	Undisclosed	Lutetium, Actinium, and others	Unnamed			
Iso-002	Undisclosed	Lutetium, Actinium, and others	Unnamed			
Iso-003	Undisclosed	Lutetium, Actinium, and others	Unnamed			
Iso-004	Undisclosed	Lutetium or Actinium	Unnamed			
Iso-005	Undisclosed	Lutetium or Actinium	Unnamed			

- IsoBio intends to focus initially on validated targets with derisked antibodies
- IsoBio also expects to explore novel targets with robust biology
- Future pipeline expansion may include additional targeting moieties (e.g., peptides) and antigens

## IsoBio proprietary advantages

1. Incorporating albumin binders into our AICs expected to enhance the PK profile while minimizing total absorbed dose to the bone marrow, kidneys, and liver
2. Validated RLTs are associated with radiostability and high specificity; plasma stability is critical
3. Easy access and broad availability of common and novel radioisotopes, both alpha and beta emitters, expected from ASP Isotopes
4. Process development, GLP, and GMP manufacturing expected to be conducted by our CDMO partners

# IsoBio represents a high value investment opportunity

- Recent acquisitions suggest large cap pharma players have confidence in the future of RLTs
  - Point Biopharma acquired by Eli Lilly for \$1.4 Bn in October 2023
  - RayzeBio acquired by Bristol Myers Squibb for \$4.1 Bn in December 2023
  - Fusion Pharma acquired by AstraZeneca for \$2.4 Bn in March 2024
  - Mariana Oncology acquired by Novartis for \$1 Bn in May 2024
- Recent successful early-stage fundraising also demonstrates high confidence from investors and the potential for accelerated growth in the field
  - Abdera Therapeutics – \$142 mm Series A/B, April 2023
  - ARTBio – \$90 mm Series A, December 2023; \$132mm Series B, July 2025
  - Ratio Therapeutics – \$50 mm Series B, January 2024
  - Radionetics – \$52.5 mm Series A, January 2024
  - Nuclidium – \$99 mm Series B, July 2025
  - Actithera – \$75.5 mm Series A, July 2025
- The radiopharmaceutical market is expected to grow from \$6.7Bn in 2024 to more than \$13Bn by 2033<sup>1</sup>
- With access to novel manufacturing technologies and the potential to support both internal and external drug development, IsoBio is believed to be a unique early-stage opportunity in this potentially massive market

## Radiopharmaceuticals have distinct advantages over other targeted modalities including low off-target effects and very high tumor absorbed dose

	<b>Radiopharmaceuticals</b>	<b>ADCs (chemotherapy)</b>	<b>Traditional radiation</b>
<b>Targeting moiety</b>	mAb, peptides, small molecule	mAb	None
<b>Cargo</b>	$\alpha$ - or $\beta$ -emitting isotope	Cytotoxic small molecules	X-rays (protons and photons)
<b>Required tumor penetration (high/low)</b>	$\alpha$ -emitter – Low $\beta$ -emitter – High	High	High
<b>Cellular internalization required (Y/N)</b>	Target-dependent	Yes	No
<b>Off-target effects</b>	Low/Medium	Medium/High	High
<b>Supply chain</b>	Unstable/constrained	Stable	Unconstrained
<b>Shelf-life</b>	Short/Medium	Long	N/A
<b>Approvals</b>	4 drugs	13 drugs	Approved
<b>Market opportunity</b>	\$11-15 Bn by 2030 <sup>1</sup>	\$20-26 Bn by 2030 <sup>2</sup>	>\$20 Bn <sup>3</sup>



# IsoBio-ASP Isotopes Partnership

- By supporting IsoBio's seed round, ASPI has access to/stake in a US-based entity, developing RLTs for US and global markets
- ASPI also has the opportunity to generate revenue from IsoBio isotope purchases
- IsoBio provides ASPI and its affiliates the opportunity to penetrate the pharmaceutical market and generate high quality data with products that are expected to be high margin and in great demand
- IsoBio expects to have access to robust supplies of a variety of isotopes for use in preclinical and clinical development through its partnership with ASPI
- IsoBio expects to benefit from the significant experience and scientific expertise of ASPI and its affiliates

# References

1. Precedence Research – Radiopharmaceutical Market Size Worth USD 14.44 Billion by 2034; 23 June 2025 ([link](#))
2. DelveInsight Business Research – Global Antibody-Drug Conjugate Market Set for a ~USD 16 Billion Surge by 2030; 21 October 2024 ([link](#))
3. Grand View Research – Radiation Oncology Market Size, Share & Trends Analysis Report By Type (External Beam Radiation Therapy, Internal Beam Radiation Therapy), By Technology, By Application, By Region, And Segment Forecasts, 2025 – 2030; 2025 ([link](#))

# Appendix A

This presentation contains forward-looking statements regarding IsoBio, Inc. ("IsoBio") that involve substantial risks and uncertainties. All statements regarding IsoBio, Inc., other than statements of historical facts, contained in this presentation, including statements regarding IsoBio's strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause IsoBio's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "will," "project," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements include, among other things, statements about: (i) the initiation, timing, progress and results of future preclinical studies and clinical trials, and IsoBio's research and development programs; (ii) IsoBio's need to raise additional funding before it can expect to generate any revenues from potential product sales; (iii) IsoBio plans to develop and commercialize our product candidates; (iv) the timing or likelihood of regulatory filings and approvals; (v) the ability of IsoBio's research to generate and advance potential product candidates; (vi) the implementation of IsoBio's business model, strategic plans for its business, product candidates and technology; (vii) IsoBio's commercialization, marketing and manufacturing capabilities and strategy; (viii) the rate and degree of market acceptance and clinical utility of IsoBio's potential product candidates; (ix) IsoBio's competitive position; (x) IsoBio's intellectual property position; (xi) developments and projections relating to IsoBio's competitors and its industry; (xii) IsoBio's ability to maintain and establish collaborations or obtain additional funding; (xiii) IsoBio's expectations related to the use of capital; and (xiv) IsoBio's estimates regarding expenses, future revenue, capital requirements and needs for additional financing.

IsoBio may not actually achieve the plans, intentions or expectations disclosed in the forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements made regarding IsoBio.

# Appendix A (continued)

Summary risk factors related to IsoBio:

- IsoBio is a newly-formed, development-stage biotechnology company with no operating history and no product candidates, and has not generated any revenue to date from product sales.
- IsoBio anticipates that it will incur significant operating losses for the foreseeable future.
- IsoBio will need to raise substantial additional funding. If IsoBio is unable to raise capital when needed, IsoBio would be forced to delay, reduce or eliminate some or all of its product development plans or commercialization efforts.
- IsoBio will be dependent upon the success of new technology, which will require significant additional development before IsoBio may be able to seek regulatory approval and may never receive regulatory approval or be successfully commercialized.
- IsoBio faces significant competition from other biotechnology and pharmaceutical companies, and IsoBio's operating results will suffer if it fails to compete effectively.
- IsoBio has not initiated any preclinical or clinical trials on any forms of cancer, and IsoBio is subject to risks and challenges that may prevent or delay the initiation or completion of its preclinical or clinical trials.
- Clinical development involves a lengthy, complex and expensive process, with an uncertain outcome, and the results of preclinical studies and early-stage clinical trials of IsoBio potential product candidates may not be predictive of the results of later-stage clinical trials.

# Appendix A (continued)

Summary risk factors related to IsoBio:

- Failure to obtain, or delay in obtaining, regulatory approvals would likely have a material adverse effect on IsoBio's business, financial condition and results of operations.
- IsoBio intends to rely on third parties to conduct certain of the preclinical research and any clinical trials for products using our technology, and if those third parties perform in an unsatisfactory manner, it may harm IsoBio's business.
- IsoBio intends to rely on third parties to produce clinical and commercial supplies of its potential product candidates, and if those third parties perform in an unsatisfactory manner, it may harm IsoBio's business.
- IsoBio's success will depend in part on its ability to obtain patents, maintain trade secret protection, operate without infringing on the proprietary rights of third parties, and commercialize its technology prior to the expiration of its patent protection.
- Companies in the medical drug/device industry may use intellectual property infringement litigation to gain a competitive advantage.
- If a third party violates IsoBio's intellectual property rights, IsoBio may be unable to enforce its rights because of our limited resources.
- Trade secret protection does not prevent independent discovery of the technology or proprietary information or use of the same.