

# IMMUNOPRECISE ANTIBODIES LTD.

## MANAGEMENT DISCUSSION AND ANALYSIS FOR THE NINE MONTHS ENDED JANUARY 31, 2018

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The following Management's Discussion and Analysis ("MD&A"), prepared as of March 27, 2018, should be read in conjunction with the unaudited condensed interim consolidated financial statements of ImmunoPrecise Antibodies Ltd. ("the Company" or "IPA") for the three and nine months ended January 31, 2018, together with the audited financial statements and accompanying MD&A of the Company for the year ended April 30, 2017. This MD&A is the responsibility of management and has been reviewed and approved by the Board of Directors of IPA.

The referenced financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board and as applicable to the preparation of interim financial statements, including IAS 34, *Interim Financial Reporting*. Except as otherwise noted all dollar figures in this MD&A are stated in Canadian dollars which is the Company's reporting currency.

### FORWARD-LOOKING STATEMENTS

This MD&A may contain certain statements that constitute "forward-looking statements" within the meaning of National Instrument 51-102, Continuous Disclosure Obligations of the Canadian Securities Administrators.

Forward-looking statements often, but not always, are identified by the use of words such as "seek", "anticipate", "believe", "plan", "estimate", "expect", "targeting" and "intend" and statements that an event or result "may", "will", "should", "could", or "might" occur or be achieved and other similar expressions.

Forward-looking statements in this MD&A include statements regarding the Company's future plans and expenditures, the satisfaction of rights and performance of obligations under agreements to which the Company is a part, the ability of the Company to hire and retain employees and consultants and estimated administrative assessment and other expenses. The forward-looking statements that are contained in this MD&A involve a number of risks and uncertainties. As a consequence, actual results might differ materially from results forecast or suggested in these forward-looking statements. Some of these risks and uncertainties are identified under the heading "RISKS AND UNCERTAINTIES" in this MD&A.

Forward-looking statements contained herein are made as of the date of this MD&A and the Company disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.

### OVERVIEW

ImmunoPrecise Antibodies Ltd. is an integrated antibody solutions company which serves as a single source provider of services across the full antibody discovery value chain (antigen design, hit generation, lead selection, lead optimization and lead characterization). The Company utilizes the full spectrum of antibody production methodologies (therapeutically-focused antigen design, construction and immunization methods, B-cell screening and sorting, library-based technologies, hybridoma methods, and transgenic and wild-type animal-based platforms) with a growing focus on generating therapeutic, human antibodies.

The services offered to customers include the development of mouse and rat monoclonal and rabbit recombinant monoclonal antibodies against a wide spectrum of antigens, as well as polyclonal antibodies, immunologically based assays, and solutions to challenges faced by clients in antibody related research and development. In addition, cryopreservation services are provided for the storage of valuable biological materials including hybridoma clones, plasmid constructs, and cell lines. The antibodies produced by the Company target a wide variety of environmental, diagnostic, research, and therapeutic applications.

IPA's technology is reliable, efficient and fast in generating a large, therapeutically-relevant antibody repertoire. We optimize the delivery of human antibodies against therapeutically-relevant targets without losing valuable antibody sequences. IPA is built on continuous innovation, which fuels our on-going commitment to excellence. We believe in unceasing, company-wide innovation, as well as scientific and technological partnerships and acquisitions, that allows us to contribute to the development of therapeutic antibodies in a unique and powerful way. This includes exceptionally reduced timelines, giving pharma and biotech companies working with us a

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competitive advantage in their timelines to both the patent office and the clinic. It also entails providing high-quality antibodies with broad diversity of sequences, which gives the highest probability that these products will meet the criteria for clinically-relevant therapies. IPA has fine-tuned its focus to the scope of therapeutic antibodies to maximize our return on investment. We are confident that IPA's platform will have a significant, global impact on the development of novel treatments for disease.

The Company operates from two state-of-the-art laboratory facilities in North America and Europe. The Company's facility at the Vancouver Island Technology Park in Victoria, British Columbia houses tissue culture and molecular facilities, an animal care unit, and cryopreservation facilities. Its facility in Utrecht, The Netherlands offers fast and large-scale production of (mammalian) recombinant proteins and antibodies for research and pre-clinical applications.

On February 8, 2018, the Company announced the appointment of Dr. Jennifer Bath as the new President and CEO. Dr. Bath's appointment adds significant senior leadership and scientific depth to the Company's leadership team. Dr. Bath served in an executive role at Aldevron, LLC, as the Global Director, where she held both strategic and technical roles. She headed the global sales and client relations teams, and defined business strategies by applying knowledge based on science, technology and the market. In addition, she served as a key technical specialist, particularly for therapeutic antibody discovery, and was responsible for growth and retention of the company's client base. Previously, Dr. Bath served as an Associate Professor at Concordia College, Moorhead, Minnesota, where she was also the Founder and Director of the Concordia College Global Vaccine Institute. Dr. Bath served in many industry leadership roles, contributed to the Economic Development Corporation's Strategic Planning Initiatives, consulted for biotechnology and pharmaceutical companies, and facilitated workshops in technology entrepreneurship. She has strong relationships with leaders in the fields of therapeutics and vaccinology and has fostered many collaborative developments and partnerships in discovery. Dr. Jennifer Bath holds a Ph.D. in Cellular and Molecular biology from North Dakota State University, and a Bachelor's degree in Biology from the University of Kansas.

The Company is listed on the TSX Venture Exchange (the "Exchange") as a Tier 2 life science issuer under the trading symbol "IPA". The Company's OTC symbol is "IPATF".

## STRATEGY AND OUTLOOK

The Company's overarching goal is to aggressively expand its share of the antibody therapeutics market by becoming a leading, integrated antibody solutions company addressing all aspects of the antibody discovery value chain through the application of conventional, novel, and advanced technologies. This market was estimated at US\$106B in 2016 and is projected to grow to US\$341B in 2017 at a CAGR (compound annual growth rate) of 12.5%<sup>1</sup>. The human antibody contract research organization ("CRO") space is forecasted to grow at 3 times the rate of all other CROs<sup>2</sup>.

Pharmaceutical and biotechnology companies increasingly rely on CRO's to improve efficiency, increase turnaround time, and access advanced and integrated expertise. The antibody discovery process is time-consuming and products are often not viable. Pharma and biotech companies have been actively demanding an alternative.

The market is in need of an innovative CRO to invest in the next generation of technology behind therapeutic antibody discovery, including the most relevant aspects of modern technologies and know-how:

- Producing fully human antibodies;
- Using immunization technologies that optimize chances of a clinical therapeutic;
- Moving beyond inefficient hybridoma technologies;

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<sup>1</sup> : *Antibodies Market: Launch of Innovative Drugs and Easy Availability of Biosimilar is Expected to Boost the Demand: Global Industry Analysis and Opportunity Assessment 2016 - 2026*

<sup>2</sup> *NC Biotech, 2017*

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- Guiding therapeutic candidate selection through powerful, high-throughput antibody characterization to select antibodies with the most promise for clinical studies; and
- Providing *in vivo* analyses focused on expediting and validating therapeutic research programs.

IPA's management and scientists have substantial experience in these areas. We were recently designated a preferred CRO the world's leading, global transgenic animal supplier for producing fully human antibodies. We have begun strategic investments and acquisitions to obtain the most comprehensive offerings and to corner the market in the most promising of these technologies. IPA is well on its way on its goal to becoming a global, one-stop-shop and single source provider for therapeutic antibody discovery.

To achieve this goal, the Company has been progressing on three imperatives:

1. Strengthening and expanding its core business as well as building a significant presence in the human monoclonal antibody market segment.

- In pursuit of this imperative, the Company has been deliberately seeking opportunities to move its antibody production facilities toward higher margin services such as RMAT and humanized antibody production. As of January 31, 2018, the RMAT division is continuing to grow reaching 16 projects compared to 10 projects in Fiscal 2017. In addition, during this period, the Company secured contracts with an additional new customer for humanized antibody production projects.
- During Q3, the scientists continued to undertake customer site visits in the USA and Europe as well as attended conferences, such as Antibody Engineering (San Diego), resulting in three new projects and, in particular, OmniAb projects, thereby reinforcing the market strategy established in Q1.

2. Growing revenues through strategic M&A and partnerships.

- U-Protein continues to grow its revenues independently, in addition to benefiting from the increased business in the IPA Victoria operation. In Q3, IPA Victoria became the third largest customer of U-Protein compared to the fifth in the past year. This represents 35 percent year-over-year revenue growth, and we expect this trend to continue into F2019.
- The Company has been able to leverage its acquisition of U-Protein to expand its reach into the EU antibody discovery services market and identify new acquisition targets and partnership opportunities. The Company will continue to acquire or strategically partner with other European Contract Research Organizations to increase critical mass.

3. Build the Company's intellectual property estate and portfolio of proprietary methods through collaborations, joint ventures, acquisitions and in-licensing.

- The Company has been strategically investing in the development and licensing of antibody discovery platforms and related intellectual property assets.
- In August 2017, the Company completed the acquisition of U-Protein Express BV ("U-Protein"), a CRO with expertise in recombinant protein production via its proprietary transient expression platforms. With this acquisition, the Company added a state-of-the-art laboratory, licenses, intellectual property, and strong customer relationships in Europe.

As of January 31, 2018, the Company had \$2,065,695 in working capital to finance its growth initiatives. The Company is preparing for a listing of its securities on Nasdaq and is strengthening its capital raising capabilities to help drive expansion.

## OVERALL PERFORMANCE

During the three months ended January 31, 2018 the Company achieved growth in revenues to \$1,723,308 from \$510,835 in 2017. During the nine months ended January 31, 2018 the Company achieved growth in revenues to \$3,630,627 from \$2,036,067 in 2017. The increased revenue was mostly related to the acquisition of U-Protein and the Company's ability to expand its market share in Europe. The Company's total assets at January 31, 2018 increased to \$13,082,476 from \$3,928,989 at April 30, 2017 as a result of the acquisition of U-Protein. The acquisition of key assets such as customer relationships, licenses, intellectual property and goodwill will be key in helping the Company execute its growth in Europe.

The Company's new laboratory is now a fully operational antibody production facility that effectively doubles its revenue generating capacity. To drive the execution of its strategic and growth initiatives, the Company

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continues to focus on the recruitment of scientific and technical staff, development of new technical training programs and a commitment to integrate continuous improvement and quality management methodologies.

To support management and the Board of Directors in exercising oversight, the Company has adopted state-of-the-art information systems for marketing and sales automation and customer relationship management (Salesforce), as well as accounting and financial reporting, resource planning and project management (Financial Force). Starting in Q3, Salesforce has been implemented in all business units to provide better management information and improve coordination between supporting departments and business units. The Company will implement laboratory management software in the coming year to complete its technology infrastructure in 2018/19. Comprehensive operational and management reporting capabilities are being implemented with a view to effectively supporting a geographically dispersed organization effectively allowing managers access to management company data globally.

With the aid of a third-party HR consulting firm, significant effort was applied to strengthening and aligning the Company's human resources by:

- *Stabilizing staffing for going forward sales growth:* Remuneration and incentive systems have been aligned with targeted revenue and gross profit performance, and operational roles and responsibilities have been focused on managing demand.
- *Leadership and operational alignment:* The Company has made changes and updates job descriptions, compensation plans, and other reward and recognition systems, and is implementing career planning and development mechanisms and job performance and quality measures.

Future growth will provide opportunities for company personnel to develop new skills and abilities to tackle eventual challenges in a growing company.

Operationally, the Victoria operation grew the core business by 27 percent this quarter as compared to last quarter, adding one new OmniAb customer as well as growing the higher value molecular projects by 49 percent.

During the last nine months, the goal of the organization was to grow sales revenue and expand our brand awareness. This focus is consistent with the 'leading with our scientists' philosophy, which is resonating with our new customers being both diagnostic and in particular the therapeutic market segment. IPA Victoria achieved 23 percent of sales revenue growth from Q1 to Q2 and Q2 to Q3, and we added seven additional customers as well as reached \$1 million sales revenue in Q3 being the first time in the division's history. In Q4, we are confident to continue this level of sales momentum. This growing activity is backed by the investment in both the enterprise systems (e.g., Salesforce and FinancialForce) as well as previous investment of time and money into the professional development, training systems and operational efficiency programs.

The Company is also expanding its commitment to research and development initiatives aimed at introducing new services through both development as well as through partnerships. To achieve the best results from its investments the Company continued to add key scientific and management personnel to its team. The recent announcement of the new CEO and President Dr. Jennifer Bath expresses this commitment to lead with its scientists in all aspects of building shareholder value.

## RESULTS OF OPERATIONS

### Three Months ended January 31, 2018

During the three months ended January 31, 2018 the Company increased revenues to \$1,723,308 from \$510,835 in 2017. This represents a 237% increase in revenue and stems from the acquisition of U-Protein and the Company's ability to grow its core business and expand its market share to Europe.

During the three months ended January 31, 2018 the Company increased its gross margin to \$924,521 from \$124,800 in 2017. In percentage terms, the Company's gross margin increased to 54% from 24% in 2017, which indicates that the investments made by the Company to date, which included the Company increasing its staffing levels, making salary adjustments, and incurring one time integration costs in order to accommodate

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anticipated future demand and growth in revenues, have started to become the driving force behind achieving the desired operational efficiencies relative to its revenue levels.

The Company recorded a net loss of \$1,211,591 during the three months ended January 31, 2018, compared to net loss of \$4,437,261 for the three months ended January 31, 2017. The net loss in 2018 is mostly attributable to non-recurring costs in foundational growth-enabling investments the Company is continuing to make to pursue strategic initiatives as well as M&A expenses. In comparison, the net loss in 2017 was mostly due to the Company recording a listing expense of \$3,847,160 related to the completion of the RTO.

Variances of note in the Company's expenses include:

- Advertising expenses increased to \$36,382 from \$17,427 in 2017 due to the Company's investment in the development of a new website, participation in conferences and tradeshows, internet marketing initiatives, and lead generation.
- Consulting fees of \$294,147 in 2018 (2017 - \$264,093) were incurred to support initiatives focused on business development, operational efficiency training programs, and systems implementation.
- The insurance expense of \$16,997 (2017 - \$nil), management fees of \$45,407 (2017 - \$nil), office and general expense of \$235,191 (2017 - \$63,093), rent expense of \$14,771 (2017 - \$nil), and repairs and maintenance expense of \$1,012 (2017 - \$nil) were all higher compared to the comparable 2017 period due to the expansion of the Company's laboratory facilities, an increase in commercial activities and the acquisition of U-Protein.
- Professional fees of \$214,500 (2017 - \$126,324) increased as a result of the Company's increased regulatory filing requirements and in relation to the various proposed acquisitions that the Company is actively pursuing.
- Salaries and benefits expense increased to \$479,974 from \$174,447 in 2017 due to the increased staffing levels needed to accommodate greater commercial activity and future growth.
- The Company recorded a share-based payments expense of \$566,749 (2017 - \$51,685) as a result of the vesting of the 1,960,000 stock options granted during the April 30, 2017 fiscal year and the 3,390,000 stock options granted during the nine months ended January 31, 2018. The option plan is aimed to align staff to the future company growth plans.
- The travel expense increased to \$49,989 from \$1,322 in 2017 due to an increase in marketing activities.

### Nine Months ended January 31, 2018

During the nine months ended January 31, 2018 the Company experienced an increase in revenues to \$3,630,627 from \$2,036,067 in 2017. This result represents an 78% increase in revenue and stems from the acquisition of U-Protein, the Company's ability to grow its core business and expand its market share in Europe, and an increase in projects for the Molecular Lab (including additional projects from the famed Foundation for Innovative New Diagnostics (FIND) organization located in Geneva, Switzerland).

During the nine months ended January 31, 2018 the Company's gross profit was \$1,591,382 from \$865,935 in 2017. In percentage terms, the Company's gross margin increased from 42.5% to 49.9% in 2018. This increase is a result of our growth and focus on higher margin work. These investments involved the Company increasing its staffing levels, making salary adjustments, one-time integration costs, and higher lab operating costs in order to accommodate anticipated future demand and growth in revenues.

The Company recorded a net loss of \$2,972,675 during the nine months ended January 31, 2018, compared to net loss of \$4,187,158 for the nine months ended January 31, 2017. The net loss in 2018 is partly attributable to non-recurring growth-enabling investments made to pursue strategic initiatives. These included consulting and management fees and other one-time costs for items such as systems development, business development, and operational efficiency consulting aimed at configuring the Company for significant future growth. The Company's research and development costs also increased as the Company pursued its goal of broadening the breadth and value of its intellectual property assets in techniques inherent in the production of humanized antibodies through new working partnerships with several companies with leading transgenic platforms. In addition, the Company incurred consulting, travel and legal costs to complete its acquisition of U-



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Protein. In comparison, the net loss in 2017 was mostly due to the Company recording a listing expense of \$3,847,160 related to the completion of the reverse takeover ("RTO").

Variances of note in the following expenses are:

- Advertising expenses increased to \$115,484 from \$26,320 in 2017 due to the Company's investment in brand awareness by improvements to the website and social media, participation in conferences and tradeshows, internet marketing initiatives, and especially in lead generation.
- Consulting fees of \$641,303 in 2018 (2017 - \$283,636) were incurred to support the Company's initiatives focused on business development, operational efficiency training programs, and Salesforce and FinancialForce systems implementation and integration.
- The insurance expense of \$38,672 (2017 - \$nil), management fees of \$84,540 (2017 - \$nil), office and general expenses of \$395,696 (2017 - \$136,058), rent expense of \$37,377 (2017 - \$nil), and repairs and maintenance expense of \$22,848 (2017 - \$nil) were higher compared to the comparable 2017 period due to the expansion of the Company's laboratory facilities, an increase in commercial activities and the acquisition of U-Protein (e.g., auditing, third-party business valuation, closing costs, etc.).
- Professional fees of \$536,259 (2017 - \$149,290) increased due to the Company's increased regulatory filing requirements and also in relation to the acquisition of U-Protein and the various proposed acquisitions the Company is actively pursuing.
- Salaries and benefits expense increased to \$1,176,127 from \$476,241 in 2017 due to increased staffing levels to accommodate greater commercial activity and future growth.
- The Company recorded a share-based payments expense of \$1,080,319 (2017 - \$51,685) as a result of the vesting of the 1,960,000 stock options granted during the April 30, 2017 fiscal year and the 3,390,000 stock options granted during the nine months ended January 31, 2018. The option plan is intended to help align staff to fulfil the Company's growth plans.
- The travel expense increased to \$172,809 from \$2,727 in 2017 due to an increase in business and marketing activities and in connection with the acquisition of U-Protein.

## SUMMARY OF QUARTERLY RESULTS

The following table sets out financial information for the past eight quarters:

|                                   | Three Months Ended (\$) |                     |                  |                   |
|-----------------------------------|-------------------------|---------------------|------------------|-------------------|
|                                   | January 31,<br>2018     | October 31,<br>2017 | July 31,<br>2017 | April 30,<br>2017 |
| Total revenue                     | 1,723,308               | 1,316,261           | 591,058          | 594,448           |
| Net loss                          | (1,211,591)             | (903,252)           | (857,832)        | (1,196,462)       |
| Basic and diluted loss per share* | (0.03)                  | (0.02)              | (0.02)           | (0.03)            |

|                                   | Three Months Ended (\$) |                     |                  |                   |
|-----------------------------------|-------------------------|---------------------|------------------|-------------------|
|                                   | January 31,<br>2017     | October 31,<br>2016 | July 31,<br>2016 | April 30,<br>2016 |
| Total revenue                     | 510,835                 | 797,807             | 727,425          | 695,862           |
| Net income (loss)                 | (4,437,461)             | 101,164             | 148,939          | 356,339           |
| Basic and diluted loss per share* | (0.20)                  | 0.01                | 0.02             | 0.04              |

\*The basic and fully diluted calculations result in the same value due to the anti-dilutive effect of outstanding stock options and warrants.

The loss for the quarter ended January 31, 2017 is greater than other quarters as the Company recorded a listing expense of \$3,887,160 upon completion of the RTO.

The losses for the quarters ended January 31, 2018, October 31, 2017, July 31, 2017 and April 30, 2017 are greater than other quarters as the Company invested heavily in growth enabling initiatives.

## FINANCING ACTIVITIES

On August 16, 2017, the Company completed a non-brokered private placement, issuing 5,250,000 common shares at \$1.00 per share for gross proceeds of \$5,250,000. The Company issued 281,100 common shares and paid a total of \$24,000 as finders' fees. The Company also incurred \$5,669 of cash issue costs.

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On August 22, 2017, the Company issued 3,030,503 common shares pursuant to the acquisition of U-Protein. The fair value of the 3,030,503 common shares issued (\$3,485,078) was estimated using a fair value of \$1.15 per share.

During the nine months ended January 31, 2018, the Company issued 503,334 common shares pursuant to exercise of stock options for total gross proceeds of \$151,000. A value of \$114,304 was transferred from contributed surplus to share capital as a result.

Subsequent to January 31, 2018, the Company issued \$4,100,000 in debentures and raised \$195,000 pursuant to the exercise of 650,000 warrants.

### LIQUIDITY AND CAPITAL RESOURCES

The Company's objectives when managing capital are to ensure sufficient liquidity for operations and adequate funding for growth and capital expenditures while maintaining an efficient balance between debt and equity. The capital structure of the Company consists of shareholders' equity.

The Company makes adjustments to its capital structure upon approval from its Board of Directors, in light of economic conditions and the Company's working capital requirements. There were no changes in the Company's approach to capital management during the year. The Company is not subject to any externally imposed capital requirements.

As at January 31, 2018, the Company held cash of \$1,838,133 (April 30, 2017 – \$2,578,445) and had working capital of \$2,065,695 (April 30, 2017 – \$2,447,476). The increase in working capital resulted from the Company issuing 5,250,000 common shares at \$1.00 per common share for gross proceeds of \$5,250,000, offset by the net cash used by operating activities of \$2,606,196 during the nine months ended January 31, 2018. As part of the investing activities, the Company made equipment purchases of \$257,080, incurred deferred acquisition costs of \$19,424, paid cash of \$4,062,607 to acquire U-Protein, and acquired cash of \$797,276 pursuant to the acquisition of U-Protein.

The Company has completed a debenture ("Debenture") financing in the principal amount of \$4,100,000. The Debentures are unsecured, bear interest at rate of 10% per annum, payable semi-annually, and are due eighteen months from the date of issue. Further, the Debentures will not be convertible into common shares of the Company. A holder of a Debenture will receive 37,500 detachable share purchase warrants for every \$25,000 of Debentures subscribed by the holder. The warrants will be exercisable at \$0.70 per share for a period of four years from the date of issue. These proceeds will be used for working capital and the acquisition of Modiquest.

As at January 31, 2018, the Company does not have any commitments for capital expenditures.

### CAPITAL EXPENDITURES

The Company made equipment purchases of \$257,080 and paid cash of \$4,062,607 to acquire U-Protein during the nine months ended January 31, 2018.

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## RELATED PARTY TRANSACTIONS

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Company. Key management consists of Dr. Jennifer Bath, President and Chief Executive Officer, Robert Beecroft, Chief Technical Officer, Natasha Tsai, Chief Financial Officer, Reginald Beniac, Chief Operating Officer, Thomas D'Orazio, former President and Chief Executive Officer, and Directors of the Company. The compensation for key management is as follows:

|                                                       | Three months ended<br>January 31, |         | Nine months ended<br>January 31, |         |
|-------------------------------------------------------|-----------------------------------|---------|----------------------------------|---------|
|                                                       | 2018                              | 2017    | 2018                             | 2017    |
|                                                       | \$                                | \$      | \$                               | \$      |
| Consulting fees <sup>(1)</sup>                        | 6,292                             | -       | 43,286                           | -       |
| Management fees <sup>(2)</sup>                        | 45,407                            | -       | 84,540                           | -       |
| Professional fees <sup>(3)</sup>                      | 13,773                            | -       | 43,881                           | -       |
| Salaries and other short-term benefits <sup>(4)</sup> | 95,028                            | 141,942 | 287,857                          | 315,618 |
| Share-based payments                                  | 174,923                           | 38,100  | 300,478                          | 38,100  |
|                                                       | 335,423                           | 180,042 | 760,042                          | 353,718 |

(1) The charge includes consulting fees paid to Guy Champagne and Dr. James Kuo, Directors of the Company.

(2) The charge includes management fees paid to Martin Hessing, a Director of U-Protein Express B.V.

(3) The charge includes professional fees paid to Malaspina Consultants Inc. in which Natasha Tsai is an associate.

(4) The charge includes salaries and benefits paid to Thomas D'Orazio, Robert Beecroft, and Reginald Beniac.

At January 31, 2018, included in accounts payable and accrued liabilities is \$1,263 (April 30, 2017 - \$14,036) due to related parties.

During the three and nine months ended January 31, 2018 and 2017, the spouse of the Chief Technical Officer provided administrative services for \$15,820 and \$41,296 (2017 – \$12,580 and \$33,413).

## OUTSTANDING SHARE DATA

The Company's outstanding share information as at March 27, 2018 is as follows:

| Security                             | Number     | Exercise Price | Expiry date        |
|--------------------------------------|------------|----------------|--------------------|
| Issued and outstanding common shares | 48,691,379 | NA             | NA                 |
| Stock options                        | 200,000    | \$1.24         | March 15, 2019     |
| Stock options                        | 1,148,333  | \$0.30         | December 20, 2021  |
| Stock options                        | 5,000      | \$1.24         | March 15, 2022     |
| Stock options                        | 1,640,000  | \$1.01         | September 18, 2022 |
| Stock options                        | 1,250,000  | \$0.65         | January 3, 2023    |
| Stock options                        | 700,000    | \$0.47         | February 21, 2023  |
| Warrants                             | 6,150,000  | \$0.70         | March 17, 2022     |
| Total                                | 59,784,712 |                |                    |

## OFF-BALANCE SHEET ARRANGEMENTS

The Company does not utilize off-balance sheet transactions.

## COMMITMENTS

During the year ended April 30, 2017 the Company extended its existing operation lease agreements for rental of office and laboratory space to include one additional office space and for an additional term of 5 years. The new lease agreement commenced January 1, 2017 and terminates on December 31, 2021. The new lease is in the amount of \$12,553 per month for all three spaces from January 1, 2017 to April 30, 2018 and \$13,543 per



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month from May 1, 2018 to December 31, 2021. The Company also has two operating leases for laboratory equipment with commitments to August 2018.

The minimum annual payments under these leases, excluding operating costs, are as follows:

|      | \$      |
|------|---------|
| 2018 | 37,658  |
| 2019 | 162,518 |
| 2020 | 162,518 |
| 2021 | 162,518 |
| 2022 | 108,345 |
|      | 633,557 |

For the Company's rental of office and laboratory space in Utrecht, Netherlands, the current lease commenced on January 1, 2017 and terminates on December 31, 2019. Annual minimum lease payments are as follows:

|      | €       |
|------|---------|
| 2018 | 30,200  |
| 2019 | 124,741 |
| 2020 | 88,415  |
|      | 243,356 |

## ACQUISITIONS AND PROPOSED ACQUISITIONS

### Acquisition of U-Protein Express B.V. (completed)

On August 22, 2017, the Company completed the acquisition of U-Protein Express BV ("U-Protein") whereby the Company has acquired all of the issued and outstanding shares of U-Protein for €6,830,000 on terms as follows:

- €2,734,732 (CAD\$4,062,607) was paid in cash on closing;
- 3,030,503 common shares of the Company were issued on closing; and
- €2,047,634 (CAD\$3,022,305) in deferred payments over a three-year period. The deferred payments can be made in cash or common shares of the Company at the election of U-Protein shareholders.

### Acquisition of ModiQuest (completed)

ModiQuest Research BV ("ModiQuest") is a privately held company based in Oss, The Netherlands that specializes in the generation of monoclonal antibodies against difficult target antigens. ModiQuest applies proprietary technologies to all aspects of the antibody discovery process in research and development, diagnostic and therapeutic applications. Using its proprietary ModiFuse™ (hybridoma electrofusion), ModiSelect™ (B-cell selection) and ModiPhage™ (phage display) technologies, ModiQuest can generate very large panels of monoclonal antibodies from various backgrounds including mouse, rat, rabbit, chicken, llama and human, as well as transgenic animals harboring the human antibody gene repertoire. ModiQuest serves clients in Europe, the US, Asia and Russia.

### Terms

On March 16, 2018, the Company announced that it has entered into the definitive share purchase agreement to acquire all of the issued and outstanding shares of ModiQuest for €7,000,000 (C\$10,570,000) on terms as follows:

- €2,500,000 (C\$4,025,000) will be paid in cash on closing;
- 6,600,399 common shares of the Company will be issued on closing; and
- €2,000,000 (C\$3,220,000) in deferred payments over a three-year period. The deferred payments will be made in three equal installments of cash and equity totaling €666,666 (C\$1,073,332) 60 days after Modiquest's next three fiscal year ends following the closing of the transaction. each anniversary date

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following closing of the transaction and will be prorated if the EBITDA of ModiQuest fails to equal the average EBITDA from the previous two years.

Completion of the transaction with ModiQuest is subject to TSX Venture Exchange final acceptance of the transaction and satisfaction of the conditions set forth in the definitive agreement.

## Acquisition of Preclinics (in progress)

Preclinics GmbH ("Preclinics") is a CRO that brings core competence in early drug development in the areas of pharmacokinetics, efficacy and potency, and drug tolerance through carrying out infection studies, huPBL models, imaging, and voluntary running programs in test subjects. Preclinics also operates state-of-the-art animal care facilities and provides contract immunization of Alpacas, Llamas, Sheep, Goats, Horses, Rabbits and Poultry, and offers blood sampling and Camelid VHH services. To support the research and development needs of clients Preclinics offers specialized research instruments as well as bulk production of Anti-Sera, Sera and Plasma of various species, and VHH-ligands.

Preclinics GmbH ("Preclinics") is a CRO located in Potsdam, Germany. As part of its CRO, it has developed its own product, Revolvzer, for tracking animal behaviour and it is ready to be fully commercialized. It has also developed patented technology related to optimized ImmunoJunction proteins. It has both a laboratory and animal care unit at its Potsdam location that offers pharmacokinetic studies in small and large laboratory animals and efficacy, potency and drug compatibility for early drug development. It also produces bulk of production of anti-sera, high quality sera and plasma from various species and bioluminescent recombinant antibodies for in vitro assays and in vivo imaging.

## Terms

On December 28, 2017, the Company announced that it has signed a binding letter of intent with Preclinics whereby the Company has agreed to acquire all of the issued and outstanding shares of Preclinics for €2,300,000 with 35% payable in cash and the remainder through the issuance of shares of the Company and an additional €750,000 payable based on continued profitability over 3 years with €250,000 paid in year one, €250,000 in year two and €250,000 in year three at the option of the Preclinics shareholders to receive payment in cash or equity.

Completion of the transaction with Preclinics is subject to a number of conditions, including but not limited to, completion of due diligence, negotiation of definitive agreements in respect of such a transaction, the availability of financing on terms acceptable to the Company, and receipt of any required regulatory and shareholder approvals.

## **CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS**

The preparation of the financial statements in conformity with IFRS required estimates and judgments that affect the amounts reported in the financial statements. Actual results could differ from these estimates and judgments. Significant areas requiring the use of estimates and judgments are as follows:

### Functional currency

The Company has used judgment in determining the currency of the primary economic environment in which the entity operates.

### Amounts receivable

The Company monitors the financial stability of its customers and the environment in which they operate to make estimates regarding the likelihood that the individual trade receivable balances will be paid. Credit risks for outstanding customer receivables are regularly assessed and allowances are recorded for estimated losses.

### Investment tax credit receivable

The investment tax credits are estimated by management based on quantitative and qualitative analysis and interpretation of various government programs, related restrictions, limitations, definitions, and eligibility conditions. Management involves its technical staff and external specialists in determining if the expenditures meet the requirements of the different tax credit claims.

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## Equipment

The Company has used estimates in the determination of the expected useful lives and amortization rates of equipment and leasehold improvements.

## Revenue recognition

The percentage-of-completion method requires the use of estimates to determine the stage of completion which is used to determine the recorded amount of revenue, unbilled revenue and deferred revenue on uncompleted contracts. The determination of anticipated revenues includes the contractually agreed revenue and may also involve estimates of future revenues if such additional revenues can be reliably estimated and it is considered probable that they will be recovered. The determination of anticipated costs for completing a contract is based on estimates that can be affected by a variety of factors, including the cost of materials, labour, and sub-contractors. The determination of estimates is based on the Company's business practices as well as its historical experience. Estimates are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the year in which the estimate is revised.

## Impairments

Each asset or CGU is evaluated every reporting period to determine whether there are any indicators of impairment. If any such indicators exist, which is often judgment-based, a formal estimate of recoverable amount is performed and an impairment charge is recognized to the extent that the carrying amount exceeds the recoverable amount. The recoverable amount of an asset or CGU of assets is measured at the higher of fair value less costs of disposal or value in use. These determinations and their individual assumptions require that management make a decision based on the best available information at each reporting period. The estimates and assumptions are subject to risk and uncertainty; hence, there is the possibility that changes in circumstances will alter these projections, which may impact the recoverable amount of the assets. In such circumstances, some or all of the carrying value of the assets may be further impaired or the impairment charge reversed with the impact recorded in profit or loss.

## Determination of segments

An operating segment is a component of the Company that engages in business activities from which it may earn revenues and incur expenses. All operating segments' results are reviewed by the Company's management in order to make decisions regarding the allocation of resources to the segment. Segment results include items directly attributable to a segment as those that can be allocated on a reasonable basis.

As the Company provides antibody production and related services in one distinct category, there is only one category to report revenues by geographical area.

## Life of intangible assets

Intangible assets are amortized based on estimated useful life less their estimated residual value. Significant assumptions are involved in the determination of useful life and residual values and no assurance can be given that actual useful lives and residual values will not differ significantly from current assumptions. Actual useful life and residual values may vary depending on a number of factors including internal technical evaluation, attributes of the assets and experience with similar assets. Changes to these estimates may affect the carrying value of assets, net income (loss) and comprehensive income (loss) in future periods.

## Purchase price allocation

The acquisition of U-Protein on August 22, 2017 was accounted for as a business combination at fair value in accordance with IFRS 3, *Business Combinations*. The acquired assets and assumed liabilities were adjusted to their fair values assigned through completion of a preliminary purchase price allocation, as described below.

The purchase price allocation process resulting from a business combination requires management to estimate the fair value of identifiable assets acquired including intangible assets and liabilities assumed including the deferred acquisition payment obligations. The Company uses valuation techniques, which are generally based on forecasted future net cash flows discounted to present value, and also relies on work performed by third-party valuation specialists. These valuations are closely linked to the assumptions used by management on the future performance of the related assets and the discount rates applied.

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## ACCOUNTING STANDARDS ISSUED BUT NOT YET EFFECTIVE

The following revised standards are effective for the annual periods noted with earlier application permitted. The Company has not completed its assessment of the impact that the new and amended standards will have on its financial statements. The Company also has not early adopted any amendment, standard or interpretation that has been issued but is not yet effective.

### Financial instruments

In July 2014, the IASB issued the final version of IFRS 9, *Financial Instruments* ("IFRS 9"), which reflects all phases of the financial instruments project and replaces IAS 39, *Financial Instruments: Recognition and Measurement* ("IAS 39") and all previous versions of IFRS 9. The new standard introduces new requirements for classification and measurement, impairment and hedge accounting. IFRS 9 is effective for annual periods beginning on or after January 1, 2018, with early application permitted. The Company intends to adopt IFRS 9 in its financial statements for the fiscal year beginning May 1, 2018. The extent of the impact of adoption has not yet been determined.

### Revenue recognition

In May 2014, the IASB issued IFRS 15, *Revenue from Contracts with Customers* ("IFRS 15") establishing a comprehensive framework for revenue recognition. The standard replaces IAS 18, *Revenue* and IAS 11, *Construction Contracts* and related interpretations and is effective for annual periods beginning on or after January 1, 2018, with early adoption permitted. The Company intends to adopt IFRS 15 in its financial statements for the fiscal year beginning May 1, 2018. The extent of the impact of adoption has not yet been determined.

### Leases

In January 2016, the IASB issued IFRS 16, *Leases*, which supersedes IAS 17, *Leases*. IFRS 16 establishes principles for the recognition, measurement, presentation and disclosure of leases. The standard establishes a single model for lessees to bring leases on-balance sheet while lessor accounting remains largely unchanged and retains the finance and operating lease distinctions. The Company intends to adopt IFRS 16 in its financial statements for the annual period beginning May 1, 2019. The extent of the impact of adoption has not yet been determined.

## DISCLOSURE CONTROLS AND PROCEDURES

In connection with National Instrument 52-109 (Certificate of Disclosure in Issuer's Annual and Interim Filings) ("NI 52-109"), the Chief Executive Officer and Chief Financial Officer of the Company have filed a Venture Issuer Basic Certificate with respect to the financial information contained in the unaudited condensed interim consolidated financial statements for the nine months ended January 31, 2018 and this accompanying MD&A.

In contrast to the full certificate under NI 52-109, the Venture Issuer Basic Certificate does not include representations relating to the establishment and maintenance of disclosure controls and procedures and internal control over financial reporting, as defined in NI 52-109. For further information the reader should refer to the Venture Issuer Basic Certificates filed by the Company with the Annual Filings on SEDAR at [www.sedar.com](http://www.sedar.com).

## FINANCIAL INSTRUMENTS

The Company's financial instruments include cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities, and deferred acquisition payments. Their carrying amounts approximate fair value due to their immediate or short-term maturity.

## RISKS AND UNCERTAINTIES

### **Research and Development and Product Development**

IPA is a life science company that makes customized antibodies and is engaged in the research and product development of new process, procedures and innovative approaches to the antibody production and new antibodies. The Company has been engaged in such research and development activities for over 20 years and has had significant success. Continued investment in retaining key scientific staff as well as an on-going

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commitment in research and development activities will continue to be a cornerstone in the Company's development of new services, processes, and competitive advantages such as Rapid Prime and its methods for the production of humanized antibodies. The Company realizes that such research and product development activities endeavour, but cannot assure, the production of new and innovative processes, procedures or innovative approaches to antibody production or new antibodies.

## **Custom Products**

The Company is reliant on the development, marketing and sale of its current custom monoclonal and polyclonal antibodies. If it does not achieve sufficient market acceptance of its expansion of its commercialization of its products and services, it will be difficult for the Company to achieve consistent profitability. The Company's marketing and sales approach and external sales personnel continues to introduce a steady stream of new customers.

## **Obsolescence**

Maintaining a competitive position requires constant growth, development and strategic marketing and planning. If the Company is unable to maintain a technological advantage, its ability to grow its business will be adversely affected and its products may become obsolete compared with other technologies. To mitigate this, the Company is making investments in new methods, technology and facilities.

## **Competition**

IPA may face significant competition in selling its products and services. Many competitors may have substantial marketing, financial, development and personnel resources. To remain competitive, the Company believes that it must effectively and economically provide: (i) products and services that satisfy customer demands, (ii) superior customer service, (iii) high levels of quality and reliability, and (iv) dependable and efficient distribution networks. Increased competition may require the Company to reduce prices or increase spending on sales and marketing and customer support, which may have a material adverse effect on its financial condition and results of operations. Any decrease in the quality of IPA's products or level of service to customers or any occurrence of a price war among the Company's competitors may adversely affect the business and results of operations. Customer reach, service and on-time delivery will continue to be a hallmark of the Company's ability to compete with other market players. Further, the recent acquisitions translate to spreading the IPA footprint on two continents. In addition, the Company has deployed a sales team tasked with continually sourcing and providing market intelligence as part of its activities.

## **Intellectual Property Protection**

Although IPA is developing its patent portfolio, IPA's intellectual property is still protected primarily through trade secrets and copyright protection. The Company takes steps to document and protect its trade secrets and authorship of works protectable by copyright. However, there is no guarantee that such steps protect against the disclosure of confidential information, rights of employees, or that legal actions would provide sufficient remedy for any breach. Additionally, IPA's trade secrets might otherwise become known or be independently developed by competitors. If the Company's internal information and knowledge cannot be protected, the business might be adversely affected.

## **Failure of Laboratory Facilities**

The Company's operations could suffer as a result of a failure of its laboratory facilities. The Company's business is dependent upon a laboratory infrastructure to produce products and services. These systems and operations are vulnerable to damage and interruption from fires, earthquakes, telecommunications failures, and other events. Any such errors or inadequacies in the software that may be encountered could adversely affect operations, and such errors may be expensive or difficult to correct in a timely manner.

The production of monoclonal and polyclonal antibodies requires state of the art laboratory facilities and animal care standards and the success of these laboratory services depends on the recruitment and retention of highly qualified technical staff to maintain the level and quality standards that customers expect of the Company's products and services. There is no assurance that the Company will be able to expand and operate such state-of-the-art laboratory services and recruit and retain qualified staff.

The Company produces and supplies monoclonal and polyclonal antibodies and there is no guarantee that such production will be successful and produce the desired results. As a result, the Company continues to be



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exposed to potential liability that may exceed any insurance coverage that it may obtain in the future. As a result, the Company may incur significant liability exposure, which may exceed any insurance coverage that the Company may obtain in the future. If the Company elects to purchase such insurance in the future, the Company may not be able to maintain adequate levels of insurance at reasonable cost and/or reasonable terms. Excessive insurance costs or uninsured claims may result in an operating loss for the Company and affect the Company's financial condition.

## **Financial and Regulatory Risks**

The Company is currently subject to financial and regulatory risks. The financial risk is derived from the uncertainty pertaining to the Company's ability to raise capital to continue operations. Regulatory risks include the possible delays in getting regulatory approval for the transactions that the Board of Directors believe to be in the best interest of the Company and include increased fees for filings and the introduction of ever more complex reporting requirements, the cost of which the Company must meet in order to maintain its exchange listing.

## **FURTHER INFORMATION**

Additional information relating to the Company can be found on SEDAR at [www.sedar.com](http://www.sedar.com).