

# Annual Report

# 2018

This report reviews the 2017/2018 activities and accomplishments of the Pennsylvania Drug Discovery Institute ([www.padrugdiscovery.org](http://www.padrugdiscovery.org)), a 501(c)3 non-profit corporation based in Doylestown, Pennsylvania



Tomorrow's  
Innovations,  
Today



## ***Letter from the Chief Executive Officer***

In 2017/2018 we continued the various outreach programs which are the hallmark of the PDDI. There is an enormous talent pool of trained, but displaced, biopharma scientists in our region, who can be assisted by the PDDI in the next stage of their careers. In addition, many faculties and their students at local colleges and universities can profit from the real-world experiences of PDDI faculty as they pursue potential careers in the business of science.

The PDDI house publication *Technology Transfer and Entrepreneurship* ([www.benthamscience.com/tte](http://www.benthamscience.com/tte)) published its fourth volume in 2017/2018 under the co-editorship of Drs. Chad Beyer and Dennis Gross. The journal covers all aspects of early-stage product development and technology transfer in biomedical research. Under the current leadership it has also lined-up a series of guest editors who will craft themed issues in areas such as blockchain and regional issues associated with entrepreneurship.

Our seventh annual PDDI Award recipient was Dr. Joseph Tarnowski of GSK. Dr. Tarnowski is the Senior Vice President for Cell and Gene Therapy Platforms at GlaxoSmithKline. His talk was on Thursday 20 November 2017 at our satellite facility, the PROTECS Innovation Center in King of Prussia. In addition to industry scientists, an open invitation was extended to local universities to attend the presentation after which Dr. Tarnowski engaged students in a roundtable discussion.

Our website, [www.padrugdiscovery.org](http://www.padrugdiscovery.org) contains relevant, useful links, lists of past events and future activities. We continue to support a Facebook page which has seen significant traffic and serves as a resource with links to relevant information in areas impacting the biopharma industry *via* reposting from ISPE, Life Sciences PA and the FDA. We also post events and photos on our Facebook site.

We have established an extensive faculty body, with both full and adjunct appointments. PDDI faculty consists of qualified researchers with biopharma experience who share in the mission and objectives of the PDDI and have offered to assist the organization in some way. In addition, PDDI Associates are companies and institutions in the region who share the mission of the PDDI and participate in at least some of the activities of the organization, such as benefiting from the in-kind donations program which has been very active this past year with extensive donated materials and hence significant transfer of materials to organizations in the Delaware Valley for their use in education and research programs.

We have also been exploring new initiatives in workforce development and re-entry especially in biomanufacturing engaging with an NSF-funded program at two local community colleges and assisting in the development and launch of a new MS in Biotechnology at the Harrisburg University of Science and Technology.

Sincerely yours,

Dennis M. Gross, MS, PhD

## ***Mission Statement and 2017/2018 Summary of Activities***

To provide service to the scientific community, such as workplace re-entry assistance for displaced researchers in the pharma and biotech industry, networking activities, and support of entrepreneurship and new educational programs to enhance workforce development.

### ***Summary of PDDI activities July 1, 2017 – June 30, 2018:***

- A workshop on PK/PD was hosted, a jobs seminar by a staff scientist at Nemours Research, and a lecture on IRB expectations for Phase I clinical studies by the head of the department of clinical research at Jefferson University was scheduled for October 2018.
- Granted the Seventh annual PDDI Drug Discovery Award to Dr. Joseph Tarnowski Senior Vice President for Cell and Gene Therapy Platforms, GSK



- The 5<sup>th</sup> Annual Distinguished Scientist Award was presented to Dr. Jay Wrobel of Fox Chase Chemical Diversity.



- Continued to process in-kind donations from the local biopharma industry, for redistribution to local start-ups, universities and high schools to promote biomedical research in the nonprofit and start-up sector regionally in the Delaware Valley.
- Met with researchers and students visiting the Center or at meetings for networking purposes as part of the ForwardTrack™ Program and career development activities.
- Published the fourth volume of the journal *Technology Transfer and Entrepreneurship*.
- Dr. Dennis Gross, along with Mr. James Jordan, CEO of the Pittsburgh Greenhouse, served as the national co-chairs for the 14th annual Biotechnology Entrepreneurship Boot Camp as part of the International BIO Meeting held in Boston. National co-chairs emeriti were

Mr. Stephen Sammut of the Wharton School of the University of Pennsylvania and Dr. Art Boni of the Tepper School of Business of Carnegie Mellon University.

- The PDDI continues to be a supporting member of Life Science PA and the Sino-American Pharmaceutical Professionals Association of Great Philadelphia participating in local meetings, annual conferences, and workshops, *e.g.*, SAPA panel on BD in the Delaware Valley.
- Member of the Board of Reviewers. for the NSF-funded NBC2 Biomanufacturing Consortium which also entailed, at the request of the NSF, the development of a nationwide strategic plan for the program.
- Photos from assorted activities

#### **MORE PHOTOS FROM ANNUAL AWARD SEMINAR**



#### **CHAN-LAMB SYMPOSIUM**



#### **SAPA Career Development Workshop at the University of Pennsylvania**





**PENNSYLVANIA DRUG DISCOVERY INSTITUTE**

STATEMENT OF ACTIVITIES

AS OF JUNE 30, 2018

	<u>12 months ending June 30, 2018</u>
<u>Revenues</u>	
Grant Income	\$ -
Contributions	\$ 6,305
Other Income	<u>\$ -</u>
Total Revenues	<u><u>\$ 6,305</u></u>
 <u>Expenses</u>	
Program Services	\$ 1,915
Supporting Services - Management and General	<u>\$ 8,814</u>
Total Expenses	<u><u>\$ 10,729</u></u>
CHANGE IN NET ASSETS	\$ (4,424)
NET ASSETS, BEGINNING OF THE YEAR	<u>8,351</u>
NET ASSETS, END OF YEAR	<u><u>\$ 3,927</u></u>



**PENNSYLVANIA DRUG DISCOVERY INSTITUTE**

STATEMENT OF FINANCIAL POSITION

AS OF JUNE 30, 2018

ASSETS

	<u>June 30 2018</u>
ASSETS	-
CASH	\$ 3,567
ACCOUNTS RECEIVABLE	-
SECURITY DEPOSIT	<u>\$ 663</u>
TOTAL ASSETS	<u><u>\$ 4,230</u></u>

LIABILITIES AND NET ASSETS

LIABILITIES AND DEFERRED REVENUE	\$ 303
NET ASSETS, UNRESTRICTED	<u>\$ 3,927</u>
TOTAL LIABILITIES AND NET ASSETS	<u><u>\$ 4,230</u></u>



## ***Directors and Officers***

**Allen B. Reitz**, Ph.D., President and Chairman of the Board  
ALS Biopharma, LLC; Fox Chase Chemical Diversity Center, J&J (Retired)

**Dennis M. Gross**, M.S., Ph.D., S.F.C.  
CEO & Treasurer/Secretary;  
Faculty - Jefferson College of Life Sciences and Sidney Kimmel Medical College,  
Thomas Jefferson University; Geisinger Commonwealth School of Medicine; Merck  
Research Labs (Retired)

**Rodney Bednar**, Ph.D., Vice President  
President LRIG, Merck Research Labs (Retired)

**Joseph F. Aceto**, Ph.D., Esq.  
Attorney at Law

**Paul S. Anderson**, Ph.D.  
former President, American Chemical Society  
Merck Research Labs (Retired), Dupont-Merck Pharmaceutical (Retired)

**Christopher DiPaolo**, B.S.  
President, ProTecs

**Ned D. Heindel**, Ph.D., former President, Am. Chem. Soc.  
Lehigh University

**Marlene Jacobson**, Ph.D.  
Temple University School of Pharmacy, Merck Research Labs (Retired)

**Gregory F. Krug**, B.S.  
President, Lampire Biological Laboratories

**Bruce E. Maryanoff**, Ph.D.  
The Scripps Research Institute, J&J (Retired)

**James K. Murray**, Ph.D.  
Professor of Chemistry  
Immaculata University



## ***Scientific Advisory Board***

**Bruce E. Maryanoff, Ph.D.** *Professor of Chemical Biology, Scientific Advisory Board Chair, Pennsylvania Drug Discovery Institute; Institute Distinguished Professor, Institute for Hepatitis and Virus Research; Investigator, The Scripps Research Institute; Associate Editor, ACS Med. Chem. Letters*

**Paul S. Anderson, Ph.D.** *Senior Vice President, DuPont-Merck (ret.); Past-President, American Chemical Society; Perkin Medal Awardee (2002); ACS Priestly Medal Awardee (2006).*

**Benjamin E. Blass, Ph.D.** *Assistant Prof. of Medicinal Chemistry, Temple University*

**Patrick M. Dentiger,** *Chief Executive Officer, Absorption Systems*

**Kenneth A. Jacobsen, Ph.D.** *Chief, Laboratory of Bioorganic Chemistry at NIDDK, National Institutes of Health*

**Christopher A. Lipinski, Ph.D.** *Independent Consultant; Pfizer (ret.)*

## ***PDDI Faculty and Staff***

**Joseph F. Aceto, Ph.D., Esq.** *Assoc. Prof. of Intellectual Property Management*

**Vyacheslav Andrianov, Ph.D.** *Assoc. Prof. of Molecular Biology*

**Rodney A. Bednar, Ph.D.** *Prof. of Biochemistry*

**Peter R. Bernstein, Ph.D.** *Prof. of Medicinal Chemistry*

**Chad E. Beyer, MBA, Ph.D.** *Assoc. Prof. of Pharmacology*

**Douglas E. Brenneman, Ph.D.** *Prof. of Pharmacology*

**Lillian W. Chiang, Ph.D.** *Prof. of Translational Medicine*

**Andrea Cuconati, Ph.D.** *Assoc. Prof. of Molecular Biology*

**Kathleen M. Czupich, MBA** *Assoc. Prof. of Entrepreneurial Studies*

**Paul Gilligan, Ph.D.** *Assoc. Prof. of Medicinal Chemistry*

**Dennis M. Gross, M.S., Ph.D.,** *Professor of Pharmacology and CEO/Treasurer*

**David L. Horn, M.D., FACP, FIDSA** *Assoc. Prof. of Clinical Pharmacology*

**William A. Kinney, Ph.D.** *Prof. of Medicinal Chemistry*

**Fred Klaessig, Ph.D.** *Assoc. Prof. of Nanotechnology*

**Anthony E. Klon, Ph.D.** *Assoc. Prof. of Theoretical and Computational Chemistry*





**Patrick Y. S. Lam, Ph.D.** *Prof. of Chemistry*

**Bruce E. Maryanoff, Ph.D.** *Prof. of Chemical Biology and Vice President*

**Cynthia A. Maryanoff, Ph.D.** *Prof. of Drug Development*

**Mark E. McDonnell, Ph.D.** *Assoc. Prof. of Medicinal Chemistry*

**Jeffrey C. Pelletier, Ph.D.** *Assoc. Prof. of Medicinal Chemistry*

**Pitchumani Sivakumar, Ph.D.** *Assoc. Prof. of Pharmacology*

**Richard W. Scott, Ph.D.** *Prof. of Pharmacology*

**Garry Smith, Ph.D.** *Assoc. Prof. of Medicinal Chemistry*

**Michael J. Sofia, Ph.D.** *Prof. of Medicinal Chemistry*

**Venkata Velvadapu, Ph.D.** *Asst. Prof. of Medicinal Chemistry*

**Jay Wrobel, Ph.D.** *Assoc. Prof. of Medicinal Chemistry*

**Zhijun Wu, Ph.D.** *Assoc. Prof. of Medicinal Chemistry*

**Edward Yurkow, Ph.D.** *Prof. of Pharmacology*

#### **Adjunct Faculty:**

**Harold R. Almond, Ph.D.** *Adjunct Prof. of Theoretical and Computational Chemistry*

**Benjamin E. Blass, Ph.D.** *Adjunct Prof. of Medicinal Chemistry*

**Michael N. Greco, Ph.D.** *Adjunct Assoc. Prof. of Medicinal Chemistry*

**James A. Hendrix, Ph.D.** *Adjunct Assoc. Prof. of Medicinal Chemistry*

**Douglas Pippin, Ph.D.** *Adjunct Prof. of Medicinal Chemistry*

**Allen B. Reitz, Ph.D.** *Adjunct Prof. of Medicinal Chemistry and President*

**Charles H. Reynolds, Ph.D.** *Adjunct Prof. of Theoretical & Computational Chemistry*

**Gerard Rosse, Ph.D.** *Adjunct Prof. of Medicinal Chemistry*

**Joseph M. Salvino, Ph.D.** *Adjunct Prof. of Medicinal Chemistry*

**James D. Thacker, Ph.D.** *Adjunct Assoc. Prof. of Immunology*

**Joseph P. Vacca, Ph.D.** *Adjunct Prof. of Medicinal Chemistry*

#### **Staff:**

**Jennifer Halgas, B.A.** *Senior Administrator*



## ***PDDI Associates***

**A&C Pharmatech, Inc.**

**Advanced Neural Dynamics, Inc..**

**ALS Biopharma, LLC**

**Artemis Solutions, Inc.**

**Bentham Science Publishers Ltd.**

**BioAdvance**

**Fox Chase Chemical Diversity Center, Inc..**

**Lam Drug Discovery Consulting, LLC**

**Lampire Biologicals**

**Mach I**

**Makindus, Inc.**

**Maryanoff & Maryanoff, LLC**

**Melior Discovery**

**Mid-Atlantic Bio Therapeutics, Inc.**

**Pennsylvania Bio Nano System, LLC**

**PharmaBlock**

**Pharmabridge, Inc.**

**PharmaCadence Analytical Services, LLC**

**Seneb Biosciences, Inc.**

**Sino-American Pharmaceutical Professionals Association**

**Synergy Pharmaceuticals, Inc.**

**The DMG Consultancy, LLC**

**The MRA Group**

**The Wistar Research Institute**