

Global Innovation Partners Accelerating Binational Commercialization

Inaugural Meeting with Philadelphia Biomedical Innovation Community

November 1, 2018 @ Drexel University, Philadelphia, PA, USA

DRAFT 33



about Global Innovation Partnership

*...inspired and informed by the
Coulter Translational Research Partnership Program of the
Wallace H. Coulter Foundation*

an endowed initiative of Drexel University

- ✓ Focused on **academic programs** that enable partners from research, entrepreneurship, business and investment communities to accelerate life saving solutions to healthcare worldwide
- ✓ Sponsors student **scholarships, professorships, exchange activities and events** that promote global innovation partnerships in biomedical sciences and technologies
- ✓ **Hosted by** the School of Biomedical Engineering, Science and Health Systems



about GIP~ABC

A business entity that advances biomedical innovations globally by

- ✓ **leveraging, integrating and managing**
- ✓ **existing and complementary translation and commercialization resources within and across US and China**
- ✓ **contributing extensive industry and market know-how and experience in Asia-Pacific and US**



about GIP~ABC

New member of the Philadelphia innovation family

- All stages of technology
- Post R&D proof-of-concept
 - Mutual value creation by risk sharing
 - Long-term horizon
 - Headquartered in Philadelphia
 - Affiliated with GIP@Drexel



GIP ~ABC | value proposition

- ✓ Reduce 'time-to-market' by
 - assembling the right team at the right time
 - investing the right resources in the right place in the world
- ✓ Optimize the cost of
 - R&D, prototyping...
 - clinical testing, evaluation, validation...
 - deployment, marketing and commercialization



GIP ~ABC | value proposition

- ✓ Build and facilitate rapid growth of start-ups and spin-offs from regional universities, local incubators and biomedical technology portfolios...
- ✓ Syndicate funds and share risks with local and regional science parks, economic development agencies, angel and venture groups...
- ✓ Leverage international commercialization resources such as technology, talent, know-how, expertise, capabilities, infrastructure, mechanisms, funding and investment...



GIP ~ABC | domains of interest

Innovative R&D and technologies in life sciences and biomedical technologies with emphasis on

- ✓ **New drug discovery and development**
- ✓ **Biologics, cell and systems biology**
- ✓ **In-vitro diagnostics**
- ✓ **Medical devices and systems**
- ✓ **Point-of-care, wearable and portable medtech**
- ✓ **Digital health**
- ✓ **Others**



GIP ~ABC | investment activity

Investment completed

- Point-of-care hematoma detection - Infrascan

www.infrascanner.com

Investment opportunities under consideration

- Anesthesia monitoring
- Stroke triage
- Targeted drug delivery for cancer treatment
- Hemostatic agents to arrest excessive bleeding
- Others





Zhong-Xi Cai, MD
Hongsheng Capital



Julie (Zuli) Hu
Hongsheng Capital



Yi (Gucci) Gu
Bioman Group



Teng-Fei Pan
Bioman Group



Shih-Bing Pan, MD
Pan's Institute of
Reproductive Medicine



Banu Onaral, PhD
Drexel University



Julian Yuan
Progressive Group

Thank you!



Global Innovation Partners Accelerating Binational Commercialization

Founders' Credentials

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Mr. Julian Yuan - I

Founder and Chairman of Progressive Group, Inc.
Founder and Chairman of Primus Medical Shanghai.
Founder and Investor of AVIVA Biosciences Corp.
Founder and Investor of AVIVA Systems Biology.
Founder and Investor of AVIVA Systems Biology China.
Investor of GenWay Biotech.
Investor of Shanghai United Cell Biotechnology.
The Investor of Infrascan.

Progressive Group, Inc.(www.pgiweb.com.tw) is a sales & marketing company focused on medical devices and IVD products in Taiwan market.

Primus Medical Shanghai(www.primushplc.com.cn) is a sales & marketing company focused on Diabetes diagnosis in China.



Mr. Julian Yuan - II

AVIVA Biosciences Corporation (www.avivabio.com), is a biotech company specialized in R&D and product development of Cell Biology in San Diego.

AVIVA Systems Biology (www.avivasysbio.com), is a biotech company specialized in R&D and product development of system biology and Research Antibody in San Diego.

AVIVA Systems Biology China (www.avivasysbio.com.cn), is a biotech company focused on the manufacture of antibody library against entire genome in San Diego.



Mr. Julian Yuan - III

Shanghai United Cell Biotechnology

(www.unitedbiotech.com.cn), is a Biopharmaceutical company manufacturing protein drugs in Shanghai.

GenWay Biotech (www.genwaybio.com), the company provides customer service for protein, antigen, antibody, assay development ...etc. to pharmaceutical industry in San Diego.

Infrascan (www.infarscaner.com) a medical device company focused on developing, commercializing and distributing hand-held diagnostic devices for head injury assessment by using near infrared in Philadelphia



Mr. Teng-Fei Pan - I

Founder and Chairman of Bioman Group and the investor of Infrascan.

Bioman Group, incorporated in 1995 in Guangzhou and it's a company focuses in healthcare and medical industry which includes medical devices, IVD, wound care dressing, R&D incubator, GDP manufacturing facility...etc. with annual revenue 1 Bil RMB from its investment portfolio.

Bioman Science and Technology (Guangzhou) (www.bioman.cn), Incorporated in 1995 in Guangzhou and it's a total solution provider in IVD industry



Mr. Teng-Fei Pan - II

Biotron Technology (Guangzhou) (www.ebiotron.com),
Incorporated in 2011 in Guangzhou, a Chinese R&D and
manufacturer in medical devices and IVD industry

BioGene Science and Technology (Zhuhai), Incorporated in 2014
in Guangzhou, an incubator for the R&D of new innovative
technologies in healthcare and biotech related field

AGT Pharmaceutical Technology (Shenzhen), Incorporated in
2003 in Shenzhen, a local manufacturer who is specializing in wound
care dressings



Professor Zhong-Xi Cai - I

Professor Cai Zhong-Xi, MD

Founding Partner of HongSheng Capital

2017-2018

HongSheng Capital, Incorporated in 2017 in Shanghai, is a Venture Capital specialized in investment in Healthcare, Lifesciences, Biotech and related industry.



Professor Zhong-Xi Cai - II

Vice President, General Manager of Sinopharm Group Co., Ltd
2003-2017

Sinopharm Group Co., Ltd. Incorporated in 2003 in Shanghai and public listed in Hong Kong in 2009. Sinopharm Group researches and develops, manufactures, distributes, and markets medicine and full range healthcare products. Sinopharm Group manages factories, research laboratories, traditional Chinese medicine plantations, and marketing and distribution networks that extend throughout China with annual revenue around 70 Bil RMB.



Shih-Bing Pan, MD, PhD, ABAAM

- Postdoctoral Fellow, Reproductive Medicine, School of Medicine, Yale University
- ShangDong Chinese Medicine University Ph.D
- Superintendant, Pan's Institute of Reproductive Medicine
- President, The Taiwan Academy of Anti-Aging Medicine (TAAAM)
- Superintendant, The Sinogene Anti-Aging Clinic
- Board of director, The Taiwan Foundation for Infertility
- Board of director, Aviva System Biology Co Ltd, San Diego, USA
- Chairman, The Comlab Laboratory Inc. Taiwan
- Chairman, Sinopharma Bioscience Co. Ltd, Hong Kong
- Chairman, Aviva Health management System
- Senior medical consultant, Paul Niehans laboratories, Switzerland
- Senior medical consultant, United Cell Biotechnology Co. Ltd, Shanghai China



Professor Banu Onaral - I

Banu Onaral,

Credentials (with focus on R&D and innovation in biomedical technologies and global activities)

PhD in Biomedical Engineering, University of Pennsylvania 1978

University of Pennsylvania; Full Professor, Drexel University (1991-1996); H. H. Sun Professor of Biomedical Engineering and Electrical Engineering, Chair Professorship honoring Prof. Hun H. Sun announced by President Jiang Zemin at Drexel University (1996)

- Founder of several Biomedical Engineering laboratories including Electrode Interface Laboratory in partnership with Prof. Hun H. Sun (1982), Biomedical Digital Signal Processing Laboratory (1990), CONQUER [Cognitive Neuroengineering and Quantitative Experimental Research] Collaborative (2008)



Professor Banu Onaral - II

- Founding Director (1997-2015), The School of Biomedical Engineering, Science and Health Systems, a college-level interdisciplinary school
- Senior Presidential Advisor, Global Innovation Partnerships, Drexel University (since 2015)
- President, IEEE Engineering in Medicine and Biology, the largest member-based professional Biomedical Engineering association in the world (Hong Kong 1988); as IEEE EMBS President, negotiated the first IEEE EMBS in China (Shanghai 2005)
- Fellow of American Association for the Advancement of Sciences (AAAS), Fellow IEEE Engineering in Medicine and Biology Society (EMBS) and Founding Fellow of the American Institute for Medical and Biological Engineering (AIMBE). Served on the Inaugural Board of AIMBE and Chaired the Academic Council



Professor Banu Onaral - III

- Leader of the first US Delegation of Biomedical Engineering leaders to China sponsored by The Eisenhower Foundation (2000) with 25 high-level representatives from academia, industry and government
- Organizer of the First Asia-Pacific Biomedical Engineering Conference in Hangzhou, China (September 2000)
- Founder of the Translational Research in Biomedical Technologies Program (2004) for commercialization of biomedical engineering innovations and led the Coulter Translational Research Partnership program endowed in 2011 following a 5-year long competition (other endowed universities selected from 80 competitors are Duke Univ., Case Western Univ, Univ. Michigan, Stanford Univ. and Univ. Virginia)



Professor Banu Onaral – IV

- Chairs the Board of Directors of two startups spun off the CONQUER CollabOrative, namely: Infrascan (2006) and fNIR Devices (2008)
- Senior Advisor for Global Strategic Initiatives - Teknopark İstanbul (since 2012) and Teknopark Ankara (starting 2018)
- Served on the advisory board of the National Science Foundation (NSF) Engineering Directorate as well as other strategic advisories of national and international institutions and companies on biomedical engineering R&D and future of biomedical technologies and systems



Professor Banu Onaral - V

- Serves on the technical review board of the Ben Franklin Technology Partners - SEP Life Sciences: Digital Health and Diagnostics/Therapeutics (since 2011)
- Participated in initiation of the Drexel-Shanghai Advanced Research Institute (SARI) Center and later Shanghai Tech University and served as an advisor to select Shanghai (e.g. BringSpring) and Changzhou (e.g. Asialand Bio-Med) based biomedical technology development enterprises.
- Founder of Shanghai Jiao Tong - Drexel University Dual-PhD Program in Neuroengineering (2013)

