2019 PDA Drug Delivery of Injectables
Impact of Digitalization on Pharmaceuticals, Manufacturing and Patient Care

12-13 November 2019 | Grand Victoria Hotel | Taipei City, Taiwan

TUESDAY, 12 NOVEMBER

08:00 – 19:00 | Registration Open

09:00 – 09:30 | Opening Remarks
Herbert Chung-Hsiun Wu, PhD, Co-Chair, *BPIPO*
Markus Bauss, Co-Chair, *SHL Connect*

09:30 – 10:30 | P1: Opening Plenary
This session highlights digitalization developments in pharmaceutical manufacturing and personalized patient care.

Moderator: Georg Roessling, PhD, Senior Consultant, Business Development Asia, *PDA*

09:30 | Future of packaging materials – reduce your footprint on the environment
Yves Steffen, *Novartis*

10:00 | Revolutionizing Personalized Patient Care through Digital Therapeutics: An Industry Perspective
Ed Deng, *Health2Sync*

10:30 – 11:00 | Refreshment Break in Exhibit Area

11:00 – 12:30 | P2: From Primary Packaging to Devices
The role and importance of primary packaging and drug delivery devices now and the trends for the future

Moderator: Georg Roessling, PhD, Senior Consultant, Business Development Asia, *PDA*

11:00 | A CDMO perspective on modern drug delivery: The journey from Drug Substance to Drug Product
Thomas Schoenknecht, *Lonza*

11:30 | Micropump device for continuous subcutaneous administration of drug formulations
Robert Kriftner, *Sensile Medical*

12:00 | Digital Design - a look at the future transformation of device design
Ron Forster, *Amgen*

12:30 – 13:30 | Networking Luncheon

13:30 – 15:00 | Concurrent Tracks

Track A1: Manufacturing: Modern concepts for facility and filling operations The manufacturing environment and the machines are essential for the manufacturing of pharmaceutical products. This session gives examples of the best current practices.	**Track B1: Devices: Increase Product Value** In this session, new developments in injection devices are presented and the value of modern injection systems for improved patient acceptance is described.
Moderator: Robin Hwang, ICP Consulting Corp **13:30 | Modern Pharmaceutical Manufacturing Site** **Speaker** from *EirGenix*	**Moderator: Markus Bauss**, Managing Director, *SHL Connect* **13:30 | Drug Delivery meets Automotive – Device Platform Design**

14:00 | Small Batch Production Filling Line **Matthias Angelmaier**, *Bosch Packaging* **14:30 | Smart Medical Device: Connected Health - Manufacturing perspective** **Alexander Mayer & Christian Kollecker**, *Hoefliger*	**Thomas Mayer**, *Sonceboz* **14:00 | Differentiating Drug Values in Market by Injection Devices** **Edgar Yeh**, *CC Bio* **14:30 | Possible Improvements of Current PFS Safety Injection of Flu Vaccines** **Lee Lin Lee**, *MedicalChain International Corp.*

15:00 – 15:30 | Refreshment Break in Exhibit Area

15:30 – 18:00 | Concurrent Tracks

Track A2: Digital Manufacturing In this session, the concept of digitalization in production is presented. Impact on process control, documentation, overall efficiency and product quality is discussed.	**Track B2: Devices with Connectivity** This session describes the change from devices to connected devices and what the advantages for patients in home care can be.
Moderator: Robin Hwang, ICP Consulting Corp **15:30 | Digital Twins in Biologics Manufacturing** **Sei Murakami**, *Hitachi* **16:00 | Digital Manufacturing increasing Production Efficiency while increasing Product Quality** **Matsumoto Mamoru**, *Hitachi* **16:45 or 17:00 | Panel Discussion on Digital Manufacturing** - What are the elements for the digital manufacturing environment? - Simulation and virtual reality - Sensors and data collection - Data processing/trend analysis - The benefits	**Moderator: Markus Bauss**, Managing Director, *SHL Connect* **15:30 | Driving better Patient Outcome with Connectivity** **Adam Shain**, *Aptar Pharma* **16:00 | Design and Development of Connected Drug Delivery Technology** **Christian Keller**, *SHL* **16:30 | Successful implementation of connected drug delivery devices: Lessons learned from Diabetes** **Arnaud Guillet**, *Biocorp* **17:00 | The benefits of Aerosol Drug Delivery Device and its Digitalization** **Jackie Tieng**, *MicroBase* **17:30 | Questions & Answers/Discussion**

18:00- 18:30 or 19:00 | Networking Reception

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09:00 – 10:30 | Concurrent Tracks

Track A3: Manufacturing/Technology: Role of Primary Packaging Components and Device/Track and Trace/Assembly This session shows how primary packaging components can interact with the filling machines, document the process and ensure total quality control.	**Track B3: Digital Health Applications enabling Personalized Patient Care** Connected devices help patients better manage their own health and care at home, which also contributes to better adherence. This session gives examples how this can be used for monitoring and diagnostic purposes but also how the internet of things can contribute for data exchange between patients at home and healthcare providers.
Moderator: Wayne Wu, President, *PDA Taiwan Chapter* **09:00 | Unique identification of glass containers throughout the manufacturing process: the benefits of glass marking during the automatic inspection of filled containers** **Andrea Sardella**, *Stevanato-Group* **09:30 | Enhancing Patient Safety and Product Quality through Technology and Digitalization** **Kwang Kok Li**, *West Pharma* **10:00 | Questions & Answers/Discussion**	**Moderator: Chi-Feng Chang**, PhD, Deputy Director, *BPIPO* **09:00 | Digital Mobile Diagnostic Devices facilitating Self-Management of Health and Diseases** **Alan Tsai**, *iXensor* Alex couldn't make it to this year's PDA Taiwan Conference because he has an urgent and very important ODM business meeting in Europe during the week of our conference… We asked if FIC has another substitute speaker, but unfortunately, only Alex could share FIC's digital health related developments…. Thus, this presentation is unfortunately cancelled… **09:30| Medical IOT leading to Patient-Centric Services** **Jerry Hsu**, *Asus Life* **10:00 | Questions & Answers/Discussion**

10:30 – 11:00 | Refreshment Break in Exhibit Area

11:00 – 12:30 | Concurrent Tracks

Track A4: Manufacturing/Technology The final step of manufacturing a drug delivery device is the assembly of the primary packaging with the device. This is a crucial step and it only is successful in terms of quality if clear specification for the primary packaging components and the filling have been considered**.** This session describes the testing and manufacturing steps which are necessary.	**Track B4: Digital Health Applications enabling Personalized Patient Care (Hospital Applications)** This session is dedicated to applications in hospitals. For tumor patients, the use of cytotoxic drugs needs special procedures which will be presented. In addition, applications of digitalization and interfacing can be of value in hospital environments. Examples are given and the potential impact on the health care system is shown.
Moderator: Wayne Wu, President, *PDA Taiwan Chapter* **11:00 | Container Integrity Testing** **Oliver Stauffer**, *PTI Packaging Technologies* **11:30 | Qualification of Test Methods: Leak Simulation**	**Moderator: Chi-Feng Chang**, PhD, Deputy Director, *BPIPO* **11:00 | Close System Transfer Device (CSTD) use with oncology drugs and biologics** **Lana Shiu**, *Amgen*

and Flow Test **Henry Lu**, *Optek* **12:00 | Modularizing Assembly and Testing Equipment for Auto and Pen Injectors** **Gilbert Fluetsch & Lucy Chung**, *SHL*	**11:30 | IIoT Enables Pharmaceutical Safety by Real-time Cold Chain Management** **David Yang**, *Advantech* **12:00 | Questions & Answers/Discussion**

12:30 – 13:30 | Networking Luncheon

13:30 – 15:30 | P3: Digital Health
Healthcare costs are increasing, and people look for ways to reduce costs by integrating digital health technologies into current healthcare infrastructure. This session gives a broader and global perspective of digital health. Highlighting efforts of governments but also showing opportunities for the healthcare systems and advantages for patients.

Moderator: Ed Deng, Co-Founder & CEO, *Health2Sync*

13:30 | How do governments worldwide promote digital health?
Lily Wong, *PwC Taiwan*

14:00 | Investing in digital health: global perspective, local implications
Joseph Mocanu, *Verge HealthTech Fund*

14:30 | US regulatory perspectives of connective devices
Lening Shen & Lana Shiu, *Amgen*

15:00 | Digital Health and Artificial Intelligence in Healthcare
Richard Binier, *Diabnext / La French Tech*

15:30 – 16:00 | Refreshment Break in Exhibit Area

16:00 – 17:00 | P4: Panel Discussion: Future of Drug Delivery and Digitalization in Health Care in Asia
In many Asian countries, the patients still receive their injectables from healthcare professionals and the home care treatment does not yet play a significant role. But healthcare costs and improved patient care will lead to developments where patients receive user friendly application systems, like autoinjectors, pens and wearables. In addition, concepts of microelectronics and digitalization in combination with the pharmaceutical product will play a role. There will be opportunities to directly receive data from the patient and have a direct access to therapy and diagnostic data from the patient. Actually, the technologies by itself are there and the potential advantages for patient management and health care costs are given or at least can be estimated. This panel discussion wants to address the dynamic of this process and the implications on patient and healthcare system. What are the real advantages? What is the impact on the health care system? What will be the drivers? What will the situation be in 10-30 years from today?

Moderators: Markus Bauss, Co-Chair, *SHL Connect*, **Herbert Chung-Hsiun Wu**, PhD, Co-Chair, *BPIPO*, **Marc Rohrschneider***, Novartis*

Panelists:
- **Ron Forster,** *Amgen*

- **Arnaud Guillet**, *Biocorp*
- **Lana Shiu,** *Amgen*
- **Lily Wong,** *PwC Taiwan*
- **Joseph Mocanu,** *Verge HealthTech Fund*
- **Anthony Jones,** *Sanofi*

17:00 | Closing Remark
Georg Roessling, PhD, Senior Consultant, Business Development Asia, *PDA*