

SMi Presents the 7th Annual Conference on...

# Pre-Filled Syring

Assessing manufacturing capacity and capabilities to enhance device developments

Marriott Regents Park Hotel, London, UK

28 - 29



#### CHAIR FOR 2015:



Alphons Fakler, **Novartis Pharma AG** 

#### **KEY SPEAKERS INCLUDE:**

- Ignace Wallaert, Principal Engineer, Primary Container & Drug Delivery Devices, **Janssen**
- Shun Ogawa, Research Manager, Mitsubishi Gas Chemical Company Inc.
- Carsten Worsøe, Principal Scientist, Novo Nordisk
- Stephen Barat, Executive Director, Scientific Affairs Pharmacology and Toxicology, Forest Laboratories, a subsidiary of Actavis
- Patrick Garidel, Head of Pharmaceutical Basic Development, Boehringer Ingelheim

#### WHY ATTEND IN 2015:

- This is a **must attend** event for those focusing on the latest developments and enhancements in the
- design and manufacturing of pre-filled syringes and injection devices.

  Insights from Key Opinion Leaders to benchmark against and gain understanding on current factors and market benefits of pre-filled syringes
- Delivery systems are evolving and quality is key in developing and enhancing delivery systems, take
- note from those accelerating in the design and development field of new PFS technologies
  Detailed regulatory considerations, new developments, industry challenges and risk assessment will be addressed to enhance product development, cost efficiency and efficacy

#### PLUS TWO INTERACTIVE HALF-DAY PRE-CONFERENCE WORKSHOPS Tuesday 27th January 2015, Marriott Hotel Regents Park, London, UK

Sponsored by:

## The Development of Pre-fillable Syringe Systems

Workshop Leader: Schott Schweiz AG 8.30am - 12.30pm

#### Non-clinical considerations for developing a small volume parenteral drug product

Workshop Leader: Stephen Barat, Executive Director, Scientific Affairs -Pharmacology and Toxicology, Forest Laboratories, a subsidiary of Actavis

1.30pm - 5.30pm











# www.pre-filled-syringes.com



# 7th Annual Pre-Filled Syringes

Day One | Wednesday 28th January 2015

#### 8.30 Registration & Coffee

#### 9.00 Chair's Opening Remarks

Alphons Fakler, Senior Packaging Engineer, Novartis Pharma AG

#### PRODUCT INNOVATION AND DEVICE DEVELOPMENT

#### **OPENING ADDRESS**

- 9.10 Development of pre-filled syringe for intravitreal (IVT) administration: Challenges and lessons learned
  - What are the requirements specific to syringes and components for intravitreal administration?
  - What would an ideal injection device for intravitreal administration look like?
  - Which technology trends could open new opportunities for future products?

    Alabaras Entlant Sonias Paging Engineers

Alphons Fakler, Senior Packaging Engineer, Novartis Pharma AG



9.50 Identifying new style technology formulations

- Dealing with PFS to obtain better care characteristics regarding quality and ease of use for patients
- What are the possibilities for PFS to ensure an efficient drug delivery system?
- For consideration integrating a pre-filled syringe into a device

Christian Olesen, Manager, Finished Products & Medical Devices, NNE Pharmaplan A/S



#### 10.30 Morning Coffee

#### **KEYNOTE ADDRESS**

- 11.00 Innovative safety system solutions addressing human factors engineering and combination product regulations
  - In an environment where final drug products are more and more often made of a combination of components, designing innovative safety solutions that match customer's needs while maintaining a high standard of quality, efficacy and safety for the end-user has become a key challenge
  - This session will explore how human factors engineering and close partnership between drug delivery system components' suppliers and drug manufacturers are becoming essential to tackle this challenge while delivering value to both pharmaceutical companies: by facilitating regulatory approval process, and their end-users: by maximizing patient adoption

Dirk Van Caelenberg, European Commercial Development Manager (Safety), BD Medical

#### MATERIAL IDENTIFICATION AND STABILITY

11.40 OXY-CAPITM Multilayer Plastic Syringe with Oxygen Absorbing Resin

 Mitsubishi Gas Chemical (MGC) introduces glass-alternative "OXY-CAPTTM Multilayer Plastic Syringe" made of oxygen absorbing resin and COP



 OXY-CAPTIM has great features including glass-like oxygen barrier, extremely low water vapor permeability, extremely low extractable, low protein adsorption, glass-like transparency and others

 OXY-CAPTM will maintain glass-like oxygen and water vapor permeability for several years, so MGC recommends using them for oxygen-sensitive bio drugs and vaccines

Shun Ogawa, Research Manager, Mitsubishi Gas Chemical Company, Inc



#### 12.20 Networking Lunch

1.30 How do you determine what material is right for your drug product?

- Assessing the validation of new syringe formats
- Considerations on choosing the material early factors in manufacturing
- What material and component considerations need to be applied to make a PFS? Ignace Wallaert, Principal Engineer, Primary Container

Ignace Wallaert, Principal Engineer, Primary Container
& Drug Delivery Devices, Janssen



2.10 Technical Data Update - Cyclo Olefin Polymer (COP) for Pre-Filled syringes

- Update on protein adsorption study on material surfaces
  Results of a syringe glass delamination study comparing
- Results of a syringe glass delamination study comparing to COP syringes
- Summary key benefits and features of COP for primary pharmaceutical packaging
   Stuart Harris, Sales and Market Development
   Manager, Zeon Chemicals Europe Ltd.



#### 2.50 Afternoon Tea

3.20 High concentrated protein solution in Pre-Filled syringes Patrick Garidel, Head of Pharmaceutical Basic Development, Boehringer Ingelheim

4.00 Round Table Discussion - Plastic vs. Glass... the ongoing debate!

- What are the different interactions in glass and plastic syringes?
- Reviewing the stability of biologic drug products in plastic and glass PFS
- How could novel plastic PFS features impact device design?
- Could more be done with the design features of a plastic syringe?
   Leaders:

**Ignace Wallaert**, Principal Engineer, Primary Container & Drug Delivery Devices, **Janssen** 

Shun Ogawa, Research Manager, Mitsubishi Gas Chemical Company, Inc

Stuart Harris, Sales and Market Development Manager, Zeon Chemicals Europe Ltd.

Dr. Nicolas Brandes, Business Development Manager Daikyo Crystal Zenith (CZ), West Pharmaceuticals



4.40 Chair's Closing Remarks and Close of Day One

Want to know how you can get involved?

Interested in promoting your services to this market?

Contact - Julia Rotar, SMi Marketing on +44 (0) 207 827 6088, or email: jrotar@smi-online.co.uk

#### Leading Media Partner:



#### **Media Partners:**













PAR ON

## 7th Annual Pre-Filled Syringes

Day Two | Thursday 29th January 2015

#### 8.30 **Registration & Coffee**

#### 9.00 Chair's Opening Remarks

Alphons Fakler, Senior Packaging Engineer, Novartis Pharma AG

#### SAFETY ASSESSMENT

- 9.10 Case study: Extractables and leachables assessment in Prefilled Syringe drug products
  - Rubber Components the unavoidable assessment of stoppers, shields, plungers etc
  - Relationship between extractables, simulated leachables and leachables
  - What is the optimal tool to predict leachables in a prefilled syringe?
  - How to perform a simulated study for a prefilled syringe
  - Case studies on simulated studies in prefilled syringes Carsten Worsøe, Principal Scientist, Novo Nordisk A/S





- Background on the origin of leachables in pre-filled syringe drug
- Reasons why safety assessment for leachables is critical and
- Safety assessment of leachables for pre-filled syringe drug products, based on PQRI best practice recommendations for parenteral drugs
- Working examples to illustrate the application of most current PQRI best practice recommendations with emphasis on pre-filled syringes

Stephen Barat, Executive Director, Scientific Affairs -Pharmacology and Toxicology, Forest Laboratories, a subsidiary of Actavis

#### **Morning Coffee**

#### MATERIAL IDENTIFICATION AND STABILITY

What is the best choice for your product? Glass or polymer PFS?

- Review the benefits and limitations of glass PFS
  - Options for polymers PFS on the market
  - Benefits and limitations of polymer PFS
  - How can pharma companies choose the best option for their product?

Anil Kumar Busimi, Head of Global Product Management, SCHOTT SCHWEIZ AG



#### 11.40 Daikyo Crystal Zenith® Prefillable Syringe and Cartridge Systems: A Containment Alternative to Glass

- Advantages and Challenges of Polymer Containers
- CZ 1ml Long Insert Needle Syringe Silicone Oil free for improved drug compatibility
- Future evolution of polymer-based systems like West SmartDose™ electronic wearable injector

Dr. Nicolas Brandes, Business Development Manager Daikyo Crystal Zenith (CZ), West Pharmaceuticals



#### 12.20 Networking Lunch

#### MANUFACTURING CAPACITY AND CAPABILITIES

#### **KEYNOTE ADDRESS**

- 1.30 Manufacturing strategies - What new approaches should be
  - Assessing the manufacturing developments and considerations - what's the outlook for 2015 onwards!
  - Discussing innovative solutions and forward thinking to enhance manufacturing capabilities
  - Injector design reviewing the latest developments Session reserved for leading pharmaceutical company

#### **Round Table Discussion - PFS Manufacturing**

- Sterilisation What sterilisation processes are being considered and what alternatives are on the market?
- Reviewing quality by design in manufacturing for pre-filled syringes
- Parenteral container manufacturers smaller batch sizes, customised medication

Leaders:

Stephen Barat, Executive Director, Scientific Affairs -Pharmacology and Toxicology, Forest Laboratories, a subsidiary of Actavis

Carsten Worsøe, Principal Scientist, Novo Nordisk A/S



#### **REGULATORY FOCUS**

- 2.50 Regulatory challenges - Case Study
  - Responsibility for the device and control around it, what guidance can be given in light of this?
  - What's the future of PFS in parallel with the regulatory guidance?
  - How can safer pre-filled syringes be developed regarding compliance?

Session Reserved

#### Chair's Closing Remarks and Afternoon Tea

#### Media Partners:

























#### HALF-DAY PRE-CONFERENCE WORKSHOP A

Tuesday 27th January 2015 | 8.30am – 12.30pm | Marriott Hotel Regents Park, London, UK

## The Development of Pre-fillable Syringe Systems



Workshop Leader: Schott Schweiz AG

Programme details to be confirmed.

#### **About the Organisation:**

SCHOTT Pharmaceutical Packaging is one of the world's leading suppliers of primary packaging and specialized analytical lab services for the pharmaceutical industry. We provide our customers quality solutions while meeting their highest demands with our expertise and broad product portfolio; including ampoules, cartridges, vials and syringes made of glass and COC polymer. Our state-of-the-art production facilities and our products comply with the highest international quality standards for pharmaceutical needs.

#### HALF-DAY PRE-CONFERENCE WORKSHOP B

Tuesday 27th January 2015 | 1.30pm – 5.30pm | Marriott Hotel Regents Park, London, UK

# Non-clinical considerations for developing a small volume parenteral drug product



Workshop Leader: **Stephen Barat**, Executive Director, Scientific Affairs - Pharmacology and Toxicology, **Forest Laboratories**, a subsidiary of Actavis

#### Overview of workshop:

This workshop will provide an overview of the non-clinical aspects of developing a small volume injectable drug product. Discussion points will consist of the non-clinical safety program for the active pharmaceutical ingredient, formulation and leachables.

#### Who should attend this workshop:

- Non-clinical
- Clinical
- Regulatory professionals

#### **Programme**:

- 1.30 Registration and Coffee
- 2.00 Intro and Overview
- 2.30 Assessing the non-clinical considerations
- 3.30 Coffee Break
- 4.00 Reviewing the non-clinical safety program for the API, formulation and leachables
- 5.00 Discussion and Q&A
- 5.30 End of Workshop

#### About the workshop host:



**Dr. Barat** has nearly 20 years of experience with global drug development and registration. He is currently Executive Director, Scientific Affairs for Forest Laboratories, a subsidiary of Actavis, where he has responsibilities for branded drug nonclinical development, is a senior member of the research and development executive council and the scientific affairs/CMC council for matters concerning impurities. Dr. Barat is also a member of the PQRI PODP working group for leachables and extractables for parenteral and ophthalmic drug products. He has spoken on the subject of leachables at numerous intnerational venues for pre-filled syringes, drug/device combinations and impurities.

#### **About the Organisation:**

Forest Laboratories, a subsidiary of Actavis, which is headquartered in Dublin, Ireland, is a unique specialty pharmaceutical company focused on developing, manufacturing and commercializing affordable generic and innovative branded pharmaceutical products for patients around the world.



Pre-Filled Syringes Americas, April 2015, New Jersey, USA | 2nd Annual Event 3 days of presentations, panel discussions and interactive workshops Should you wish to join our speaker line-up or find out more about our sponsorship opportunities, please contact Rhiannon Chandler-Day on +44 (0) 20 7827 6024 or email rchandlerday@smi-online.co.uk

# **Pre-Filled Syringes**

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#### Mitsubishi Gas Chemical

Mitsubishi Gas Chemical (MGC) has successfully developed multilayer plastic vial and syringe. They have the characteristics of glass-like oxygen barrier, extremely high water barrier, extremely low extractables, high transparency and others. MGC recommends using them for oxygen-sensitive bio drugs, vaccines or diagnostics as an alternative for glass containers. www.mgc.co.jp/eng



#### **SCHOTT**

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West works side by side with its healthcare partners from concept to the patient, designing and manufacturing packaging, diagnostic and delivery systems that promote the efficiency, reliability and safety of their products. Every day, West is leading the way with cutting-edge technologies and quality systems, a thorough understanding of global regulatory compliance, and an unmatched and growing knowledge base of relevant pharmaceutical product testing, development and packaging. Based in Exton, Pa., West supports its customers from sales, manufacturing, customer support and research and development locations in North and South America, Europe, Asia and Australia. www.westpharma.com



#### **Zeon Europe**

Zeon Europe GmbH is the European marketing/sales organisation of ZEON CORPORATION, Japan. Based on unique C4 and C5 extraction technologies Zeon developed an integrated production system and is striving to create new products and business areas by utilizing these core technologies. As part of specialty materials business Zeon produces Cyclo-Olefin Polymers (COP) under the tradenames ZEONEX® and ZEONOR®. www.zeonchemicals.com

#### **FACTS AND FIGURES:**

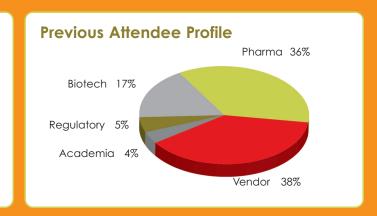
#### Who should attend this conference:

You should attend this event if you work in the Pharmaceutical Industry with responsibilities in Manufacturing, Packaging, Device Development and Regulatory Affairs.

#### Job titles include:

- Principal Scientist
- Head of Device Development
- Head of Global Product Management

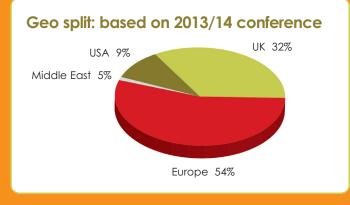
- Senior Packaging Engineer
  Manager, Finished Products & Medical Devices
  Head of Prefilled Syringes and Liquid Vials
  Senior Director, Packaging, Device and Delivery



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### PRE-FILLED SYRINGES

Conference: Wednesday 28th & Thursday 29th January 2015, Marriott Hotel Regents Park, London, UK Workshops: Tuesday 27th January 2015, London

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