SSPC – The Science Foundation Ireland Pharmaceutical Research Centre

OUR MISSION

TO POSITION IRELAND AS A GLOBAL HUB FOR PROCESS INNOVATION AND ADVANCED MANUFACTURING IN THE PHARMACEUTICAL INDUSTRY
SSPC - AN INTRODUCTION

- SFI Research Centre for Pharmaceuticals
- Multidisciplinary academic-industrial collaboration focused on innovating Pharmaceutical products and processes
- Proven structures & operating procedures (communications, NDAs, consortium agreement)
- Exemplar of academia-industry collaboration
- Uniquely facilitates inter-multi-industry collaboration in the precompetitive space
- Community of Practice & Open Innovation
SSPC 2019: As we are now

- **80** €Million Budget
- **68** Academic Investigators
- **9** Research Performing Institutes
- **24** Industrial partners
- **22** Collaborative Research Projects
- **85** PhD Enrolments
- **87** PDRA Participants
- **400** Community
- **80** Technical meetings, workshops & conferences
- **100,000** Direct interactions with general public
SSPC Research Programme

5 Themes integrate industrial key challenges with world class research groups

- **Challenge 1:** Reducing Time to Market in Drug Development
- **Challenge 2:** Advanced Manufacturing
- **Challenge 3:** Improved Efficacy of Drug Products
- **Challenge 4:** Addressing the Needs of New, More Complex Active Ingredients

**Molecule**

**Manufacturing**

**Modelling**

**Medicines**

**Material**

4 July 2019
Dublin, Ireland
H2020 Brokerage Event on ICT, Advanced Materials and Manufacturing
DT-NMBP-06-2020: Open Innovation Test Beds for nano-pharmaceuticals production
SSPC to coordinate “NanoPharmaEurope”

Pilot Manufacturing (incl GMP) .... UL; EU: NanoPilot / Facturing; SMEs

- SEP: Coordination / Management / Business development
- Technological Assessment / Product selection (ETPN TAB ++)
- Characterisation (EUNCL ++ [RPOs, SME’s] )
- Validation cases – Proof-of-Concept nanomedicines
- Support services (Tech support, regulatory, clinical guidance, business dev.)
- Dissemination & Exploitation, Marketing
  - SME engagement & Market Development; Business planning
  - Leverage SSPC & PMTC Industry model?
  - Engage Reps, Distis, CDMO’s, other

(Engage with relevant *recently funded* projects: TBMED, SAFE-N-MEDTECH, REFINE, EMPIR, NoCanTher, LEE-BED)

(Regulatory: UL Reg Affairs; National Regulatory bodies, Consultants)
DT-NMBP-06-2020: Open Innovation Test Beds for nano-pharmaceuticals production “NanoPharmaEurope”

Call for Participation
SMEs/Industry/CMOs/CROs/RPOs

• Nano-particle processing (GMP);
• Validation/Use cases: Proof-of-concept nanomedicines
• Regulatory expertise – Advisory
• Market Access / to pharma industry networks
• Business Development / Planning / Start-up management / Funding
DT-FOF-11-2020: Quality control in smart manufacturing

SSPC as Coordinator

Implement Continuous manufacturing for pharmaceutical production, with respect to innovative process monitoring and modelling approaches, including the coupling of discrete unit operations into integrated processing lines, PAT for process monitoring and Integrated process control. Deliver whole process design methodologies, applying novel process intensification, monitoring, control, automation concepts to ensure raw materials, energy and process equipment are employed more economically.

- Provide adequate levels of data accuracy, traceability and precision; use suitable modelling and simulation approaches and data fusion techniques.
- Integrate intelligent, cognitive, adaptive and cost-effective instruments and systems of sensors/actuators for process monitoring and control (e.g. virtual sensors and digital twins) into existing production or pilot lines;
- Showcase real-time data validation within an actual production line, and incorporate data integrity strategies
CONTACT

Donal Killackey
Funding Manager
SSPC – SFI Pharmaceutical Research Centre
Donal.Killackey@ul.ie

+353 61234134
+353 863886921

MS2-020
Institiúid Bernal | Ollscoil Luimnigh | Éire
Bernal Institute | University of Limerick | Ireland