



Corporate Corner Event 10th Oct
in Turku

Bayer Finland Interest Areas



2022





Drug Delivery Systems, Product Formulation and Development

Bayer Team: Drug Carrier & Depot Systems / Chemical & Pharmaceutical Development

- Drug delivery technologies for drug modalities: Drug modalities including small molecules and large molecules like nucleic acids and peptides
- Nanotechnologies in drug delivery: Screening, assays, development, formulation and analytics
- Tissue/organ specific targeting and intracellular delivery: Especially non-viral vectors / cell and gene therapy
- Polymer based drug delivery systems: Especially solid dosage forms and drug carriers and depot systems
- Medical devices and combination products
- Pharmaceutical 3D printing: Both drug formulations and medical grade materials for medical devices
- Nucleic acid technologies: Screening, assay development, analytics
- Advanced modelling in pharmaceutical research and development: Data science, machine learning, artificial intelligence



Manufacturing of Pharmaceuticals and Medical Devices

Bayer Team: Product Supply Turku

1. Data as core capability

Data & Analytics - Foundation

- Manufacturing processes & data flows
- Data Governance & data as an asset
- In-line process control/measurement
- Real time operational data & dashboards

Data & Analytics - Predictive capabilities

- Digital Shadow of manufacturing process
- Model based optimization - "golden batch"
- Machine Learning

2. Automation & Machine Vision

- Process Automation
- Predictive Maintenance
- Visual Inspection
- Connectivity / IoT
- Continuous manufacturing



3. Sustainable Manufacturing



Project Management in Clinical Development, Data Science and Analytics, Medical Writing, Clinical Trials Monitoring

Bayer Team: Clinical Development & Operations / Oncology Development Operations

- Solutions to accelerate and improve efficiency of clinical trials
- Patient centricity, recruitment and retention
- Decentralized clinical trials
- Data Science, ML, AI, Advanced modelling in clinical development
- Scientific medical writing process
- Precision medicine: Biobanks and Real World Data
- Cellular therapies for tumors
- Immuno-oncology
- Combination therapies in oncology



Health Economics & Outcomes Research, Medical Affairs, Marketing & Sales

Bayer Team: Pharma Commercial, Market Access, Medical Affairs

- Real World Evidence (Health Records, Data Lakes, Health Care Registries, Biobanks)
 - Burden of Disease (epidemiology, resource use incl. cost, prediction of future trends)
 - Health Economic Evaluation
 - Local Treatment Patterns
- Health Economics incl. modeling
- Disease awareness
- Machine Learning and Artificial Intelligence (also in support of the above)
 - Finding the right patients for the right treatments in a timely fashion



Social Innovation

Bayer Team: Communications, Public Affairs, Science and Sustainability

- Improve sexual and reproductive health and access to contraception and maternal health services in low and middle income countries
- Digital health and gamification to advance social innovation



Corporate Corner Event on 10th Oct focuses mainly on Bayer interest areas in Finland. Here you will find info also on *Bayer Global Interest Areas*



2022





Pharmaceuticals: Global Therapeutic Focus Areas

Drug discovery activities focus on three therapeutic areas



Cardiovascular diseases

- // Heart Diseases
- // Vascular Diseases
- // Lung Diseases
- // Kidney Diseases
- // Acute Organ Disorders



Oncology

- // Precision Molecular Oncology
- // Targeted Alpha Therapies
- // Immuno-Oncology



Gynecology

- // Uterine Fibroids
- // Polycystic Ovary Syndrome
- // Endometriosis



Radiology



Ophthalmology



Hemophilia

**Drug
Discovery
Activities**



Bayer Global Science & Technology Focus Areas

Bayer Division	Topic
Pharmaceuticals	Pharmaceuticals in the following therapeutic areas: Oncology, Cardiology, Gynecology, Ophthalmology, Hemophilia, Radiology: https://www.bayer.com/en/pharma/partnering New modalities: Cell and Gene Therapy Digital Health solutions especially in the abovementioned therapeutic areas: https://www.g4a.health/
Consumer Health	Solutions to improve existing products - new formulation, packaging, online service, medical devices etc. New consumer health solutions - new products, services or apps Areas of interest: allergy, cough & cold, pain, cardiovascular risk, dermatology, digestive health, and vitamins and supplements: https://www.bayer.com/en/personal-health/partnering-to-achieve-health-for-all
Crop Science	Weed Control, Disease Control, Insect Control, Yield Enhancement & Stress Resistance https://www.bayer.com/en/agriculture/collaborations
Bayer Leaps: Investing in transformative technologies	Solutions to: <ol style="list-style-type: none">1. Cure genetic diseases2. Provide sustainable organ and tissue replacement3. Reduce environmental impact of agriculture4. Prevent and cure cancer5. Protect brain and mind6. Reverse autoimmune diseases and chronic inflammation7. Provide next-generation healthy crops8. Develop sustainable protein supply9. Prevent crop and food loss10. Transform health with data More info at: https://leaps.bayer.com/approach/#10leaps