Welcome

7th Wädenswil Day of Chemistry

Exhibition Slam
Who we are

Culture Collection of Switzerland

Strains  Cryostorage  Customised Services

CCOS, Einsiedlerstr. 34, CH-8820 Wädenswil, www.ccos.ch
What we’d like to share with you

Share your biological material

Research Community

Contract

MTA

Culture Collection of Switzerland
Cell Culture Technologies

- Independent Swiss private company founded in 1992
- Development and manufacturing of minimal culture media consisting of chemically defined mixtures of molecules
- Each molecule characterised by CAS/EINECS numbers
- No serum, proteins, peptides, hydrolysates, extracts etc. No animal-derived ingredients
- www.cellculture.com
What we’d like to share with you

• Cell Culture Technologies offers know-how to
  - Eliminate undesired medium components
  - Develop chemically defined culture media
  - Adapt media formulations to particular applications
  - Cultivate cells in minimal culture media

• Collaboration under Technical Assistance Agreements: Material, Methods, Meetings

• Intellectual property rights arising from technical collaborations typically transferred to customers
Who we are

Spin off of the University of Pisa

Team: 10 years of experience in advanced 3D in-vitro models

Goal: provide the biologists with technology and know-how to refine the in-vitro models
What we’d like to share with you

**LiveBox1**
A single flow bioreactor for metabolic organs simulation

**LiveBox2**
A double flow bioreactor with a membrane to mimic physiological barriers

**Advanced cell culture systems:**
- Human organ environment simulation
- Multi-organ models

Liver
Intestine
Heart
Ureter
Lung
Vessels
What we’d like to share with you

Advanced cell culture systems:

- Human organ environment simulation
- Multi-organ models
- 3D and dynamic cell cultures
- Real time monitoring

Products distributed by:

Dunn Labortechnik GmbH
What we’d like to share with you

Second in-vitro Alternatives Workshop

Dates: 23\textsuperscript{th} - 24\textsuperscript{th} July 2015

Where: Istituto di Fisica Applicata
“Nello Carrara”, via Madonna del Piano 10, 50019, Sesto Fiorentino (FI), Italy

Registration deadline:
30 June 2015

Register at: info@ivtech.it
UPM – The Biofore Company

• UPM leads the integration of bio and forest industries into a new, sustainable and innovation-driven future
• Cost leadership, change readiness, engagement and safety of our people form the foundation of our success
• In 2014, UPM's sales totalled € 9.9 billion. UPM has production plants in 13 countries. Our 20,000 people work in 45 countries across six continents
GrowDex® is UPM’s cellulose nanofibril hydrogel for 3D cell cultures

GrowDex® is highly biocompatible with human cells and tissues but does not contain any animal- or human-derived components

GrowDex® can be tuned to fulfill the requirements of different cell types

GrowDex® is easy to use: no crosslinking needed, working temperature 5 to 50°C

GrowDex® hydrogel can be completely degraded by enzyme treatment

GrowDex®’s benefits are supported with scientific research and publications
Who we are

Shaping The Future Of Healthcare
What we’d like to share with you

• 3D printed synthetic bone grafting solution with unique bioarchitecture fostering angiogenesis

• OsteoFlux® provides patients & healthcare providers with unique benefits:
  – Better augmentation volume predictability than xeno- & autografts
  – Eliminates autogenous grafting & extraction-volume limitations
  – Superior ability to precisely shape BGS for individual patients
  – No risk of disease transmission or immune reaction

• Personalized solution using 4DPrinting CAD/CAM:

  Digital imaging (CT /MRI / X-ray)  →  Defect visualization and segmentation  →  Additive manufacturing (OsteoFlux® custom)
BioRam®: Reinvent Cell Analysis

Raman spectroscopy is an ubiquitous cell biomarker - solely based on light effects. Photons hit biomolecules of a cell and are ejected with shifted frequencies that yield a specific spectral pattern.

The “photonic marker” is unique, like a fingerprint, and depicts changes in the metabolome of the cell.

- during cell growth
- with differentiation
- caused through disease
- induced by drugs or toxins
BioRam® Great Potential in Biology and Medicine

Safe and sound with BioRam®
Quality control & sample validation
- Increase safety for your patients
- Benefit from non-destructive analysis
- Ensure quality of cell based therapeutics
- Guarantee cell viability and functionality

Shed light into cell behavior
Cell culture & drug screening
- Identify cell types and subpopulations
- Monitor cell state and development
- Diagnose molecular changes induced by treatment and disease

See the whole spectrum of cell development
Stem cells & regenerative medicine
- Characterize stem cell populations in-line
- Detect and monitor cell differentiation
- Prove functionality of differentiated cell
- Depict cell composition in tissue products

Innovative therapy is just a laser beam away
Tumor research & analysis
- Discriminate tumor from non-tumor cells
- Characterize tumor entities and staging
- Discover tumor subpopulations
- Screen for patient specific drugs

Trapping effect for cell suspensions
subcellular precision
BioRan® for label-free and non-invasive cell identification

Analysis
- label-free
- non-invasive
- Rapid

Precision
- highly specific
- sub-cellular resolution
- small sample amounts
- scalable

Visit our ServiceLab
- Test your samples
- Perform your project
- Order a Contract work

Happy cells – healthy people

happycells@celltool.de
Who we are

• We are GENILEM (www.genilem-suisse.ch)
• We’ve just turned 20.
• We are a non-profit, volunteer organization with regional chapters across Switzerland.
• We are dedicated to helping start-ups successfully enter the market.
• Innovative companies meeting our strict selection criteria receive a 3-year free-of-charge coaching:
  – covering a broad range of topics
  – provided by experienced entrepreneurs
What we’d like to share with you

• We don’t just coach start-ups in leading-edge technology (Life Sciences, Energy, IT...)
• We also love to coach companies outside hi-tech that innovate in the areas of marketing, sales or services.
• We provide coaching only. We don’t invest. We have nothing to sell.
• Having said that – our nation-wide network can help start-ups access investors and professional services.
• What we’d like to share with you is our passion for successful enterprise creation. So please talk to us, mention us, challenge us.
• www.genilem-suisse.ch
Who we are

Tumor Surgery & Laboratory for Orthopedic Research

- Clinical OS research
- *In vitro* and *in vivo* OS models
- Biobank
- Sarcoma Center

Cell Culture and Tissue Engineering

- 3D cell culture
- Applied OS research
- OS microtissue model development
- TEDD

Clinical research

*in vitro*

Applied research

(Pre-)clinical research
What we’d like to share with you

Development of reliable and robust 3D osteosarcoma microtissue models

- Personalized medicine
- Drug assessment

**Standard treatment**

- Biopsy
- Diagnosis
- Chemotherapy
- Resection
- Chemotherapy

Approx. 90 days

**Future improved treatment**

- 3D microtissues from biopsy

Reliable 3D cell culture platform

- 2D and *in vivo* data
- Gene expression data

**Drug sensitivity**

- Personalized treatment