

Novel human in vitro cellular systems for disease modelling, neurotoxicology and tissue engineering with human iPSC-derived cells

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Expectations from this COST

- From **YOU**:
- Joyful, interesting NETWORKING meetings ...
- New Products and services: jointly developing cellular assays, new biomaterials, medical models and treatments

From **BIOTALENTUM** to you:

- Provide cell based support: neuronal and cardiac cells for regenerative experiments, 3D tissues, gene editing
- Support for EU projects – interdisciplinary setting up, submission, management, dissemination and outreach, business development... joining efforts to win.. Health and material H2020 calls

WHO WE ARE AND WHAT WE DO

BioTalentum is a leading technology provider in the field of development of **new animal and cellular models, stem cell systems for research, drug testing and toxicology assays.** We provide novel solutions to academia & pharmaceutical/chemical/biotechnology industry.

Services

1. **Stem cell laboratory services:** Full range of pluripotent stem cell based transgenesis, differentiation, marker analysis of cell lines or pre-implantational embryos; *in vitro* cell based assays and tests from knock-out or transgenic stem cell lines; cellular models
2. **Animal facility services:** Full transgenic and knock-out mouse generation services with state-of-the-art cryopreservation technologies in SPF conditions
3. **Molecular and cell biology services and Bioinformatics** (transgenic technologies, datamining, analyses, interpretation)
4. **BIOTALENTUM CONSULTING:** Branch for training and advisory, grant project writing/management, dissemination

Resources

Human:

- 20 personnel at Gödöllő, Hungary

Infrastructure:

- 490 sqm lab and animal facility space at Gödöllő
- Rented facilities at Szeged and Debrecen, HU
- Fully equipped cell culture, molecular biology, embryology and micromanipulation laboratories & SPF mouse facilities

Intellectual property:

- Stem cell and transgenic cell line and animal production technology know-how
- Cryopreservation (vitrification) patent

BioTalentum is very **active in European research**: research partner in 4 FP6 and 17 FP7 projects; in 13 of these as the coordinator, 9 H2020 projects:

NABBA: Design and development of advanced NAnomedicines to overcome Biological BArriers and to treat severe diseases/ **Topic**: MSCA-ITN-2014-ETZ

CaSR Biomedicine

Calcium-Sensing Receptor (CaSR): Therapeutics for Non-Communicable Diseases/ **Topic**: MSCA-ITN-2015-ETN **Action**: MSCA-ITN-ETN

EUToxRisk: An Integrated European 'Flagship' Program Driving Mechanism-based Toxicity Testing and Risk Assessment for the 21st Century/ **Topic**: PHC-33-2015

30 MIO EUR- 40 partners

iNanoBIT

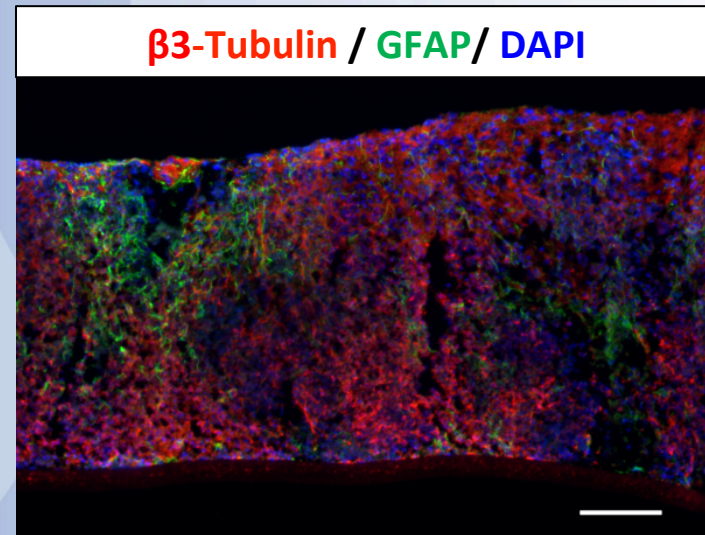
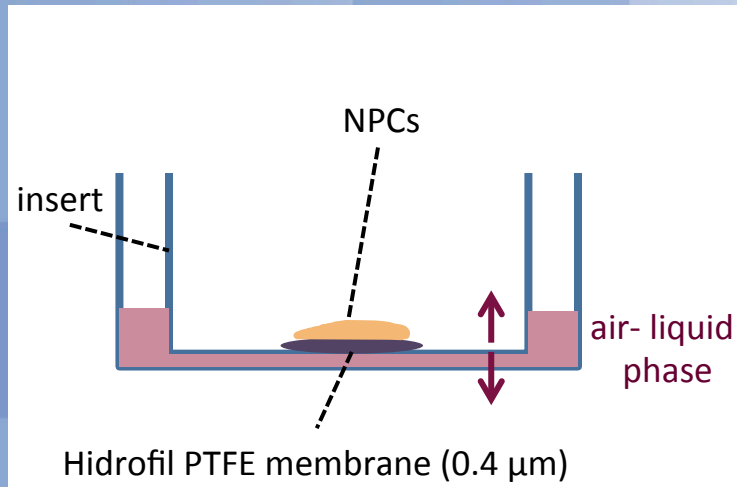
Integration of Nano- and Biotechnology for Beta-cell and Islet

Transplantation Call: NMBP-15-2017: Nanotechnologies for imaging cellular transplants and regenerative processes in vivo in a pig model for type 1 diabetes treatment. **Co-ordinator**, 7 M EUR

2 additional MSCA-ITN and one RISE.

AND 6 COST action partnership (NAMABIO, EMBA, CELLFIT, SALAAM,, DairyCare etc..)

3D neuronal differentiation ALI ENT form hiPSC



Our human medical models research (see poster)

Alzheimer's disease : PSEN1 FAD and Sporadic SAD lines

Autism spectrum disorders

Rare disease: MPS-II (Hunter syndrome)

Non-CNS : osteoarthritis, diabetes, cardiovascular

How to help others with EU projects?



- Independent branch on EU project management and trainings
 - (<http://www.biotalentumconsulting.eu/>).
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- ✓ 10 years research experience in EU projects provided a solid base for consulting
 - ✓ 66 M EUR won by the consortia led or supported by BioTalentum
 - ✓ Hands-on experience of the FULL project cycle from consortium building to ex-post audits - in various EU “instruments”
 - ✓ Over 80 FP7 and 60 H2020 submissions
 - ✓ More than 200 international partners
 - ✓ Training, dissemination and outreach activities:
 - ✓ “My Science”- European Programme for Young Journalist, FP7, EURAC, Bolzano, IT
 - ✓ ITN trainings on self-development, business development, ethics, networking
 - ✓ Researcher Nights, mentoring “Talent Agora”, Templeton Program