

Calcilytics for inflammatory lung diseases

WP2. Novel therapeutic applications in diseases of ageing



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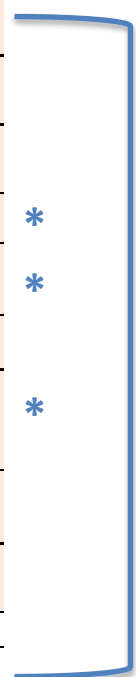
Consortium Member	Legal Entity Short Name	Academic (tick) (non-academic)	PhD (tick)	Doctoral (tick)	Country	Dept./ Division / Laboratory	Scientist-in-Charge	Role of Partner Organisation
Academic Beneficiaries								
Medical University of Vienna	MUW	✓		✓	Austria	Pathophysiology & Allergy Research.	Enikő Kállay	Coordinator; Training: in 1 st and 3 rd ETN School; eLearning
Cardiff University	CU	✓		✓	United Kingdom	School of Biosciences	Daniela Riccardi	Joint Leader of WP2; Training in 1 st ETN School; eLearning
Fundació Sant Joan de Deu	FSJD	✓			Spain	Department of Oncology. Developmental Tumour Biology Laboratory	Carmen de Torres Gomez-Pallete	Joint Leader of WP3; Training: 3 rd ETN School; eLearning; Clinical secondments
University of Copenhagen	UCPH	✓		✓	Denmark	Department of Drug Design and Pharmacology	Hans Bräuner-Osborne	Joint Leader of WP4; Training: 1 st , 2 nd ETN School; eLearning
University of Florence	UNIFI	✓		✓	Italy	Department of Internal Medicine	Maria Luisa Brandi	Coord. Clinical Secondments, Training: 3 rd , 4 th ETN school
University of Liverpool	UL	✓		✓	United Kingdom	Institute of Ageing and Chronic Disease	Fadil M. Hannan	Joint Leader of WP5 Training 1 st , 3 rd ETN School, eLearning; Clinical secondment
University of Manchester	UM	✓		✓	United Kingdom	Faculty of Life Sciences	Donald Ward	Leader WP4 and Educational Board; 4 th ETN school, eLearning
The Chancellor, Masters and Scholars of the University of Oxford	UOXF	✓		✓	United Kingdom	Nuffield Department of Clinical Medicine	Rajesh V. Thakker	Member of IPRB Training: 1 st and 3 rd ETN School
Université de Picardie Jules Verne	UPJV	✓		✓	France	Institut National de la Santé et de la Recherche Médicale Unit 1088	Romuald Metaverri	Joint Leader of WP3, Member of the Educational Board; Training: eLearning
Stichting VU-VUMC	VU	✓		✓	The Netherlands	Systems Bioinformatics	Frank Bruggeman	Joint Leader of WP1 Training: 1 st , 2 nd ETN School, eLearning
Non-academic Beneficiaries								
Biotalentum Ltd	BIOT		✓		Hungary	Biotalentum Ltd	András Dinnyés	Joint Leader of WP2; Training 2 nd , 3 rd , 5 th ETN School; e-Learning; Industry secondments.
S.A.F.A.N. Bioinformatics	SAFAN		✓		Italy	SAFAN Bioinformatics	Luisa Pugliese	Joint Leader of WP1; Training 2 nd , 5 th ETN School; Industry secondments.
TissueGnostics	TG		✓		Austria	TissueGnostics GmbH	Rupert Ecker	Joint Leader of WP5, Leads IPRB Training: 2 nd , 5 th ETN School; Industry secondments.
Partner Organisations								
AHT Management Kft.	AHT-M		✓		Hungary		Andrew Hollo-Tas	Training: 1 st , 2 nd , 3 rd , 4 th , 5 th ETN schools, eLearning. ETN Quality Management.
FH JOANNEUM GmbH	FHJ	✓			Austria	ZML-Innovative Learning Scenarios	Jutta Pauschenwein	Organising E-learning and homepage.
Novartis Pharma AG	NVS		✓		Switzerland	GPCR Biology, Developmental & Molecular Pathways; Novartis Institutes for Biomedical Research	Klaus Seuwen	Training: 2 nd and 5 th ETN school, Mentoring ESRs. Hosting ESRs in secondments.
ImaBiotech	ImaB		✓		France		Jonathan Stauber	Training: 2 nd ETN school. Mentoring ESRs. Hosting ESRs for secondments

Co-supervisor

Co-supervisor

Co-leader
WP2
(Novel
therapeutic
applications
of the CaSR in
diseases of
ageing)

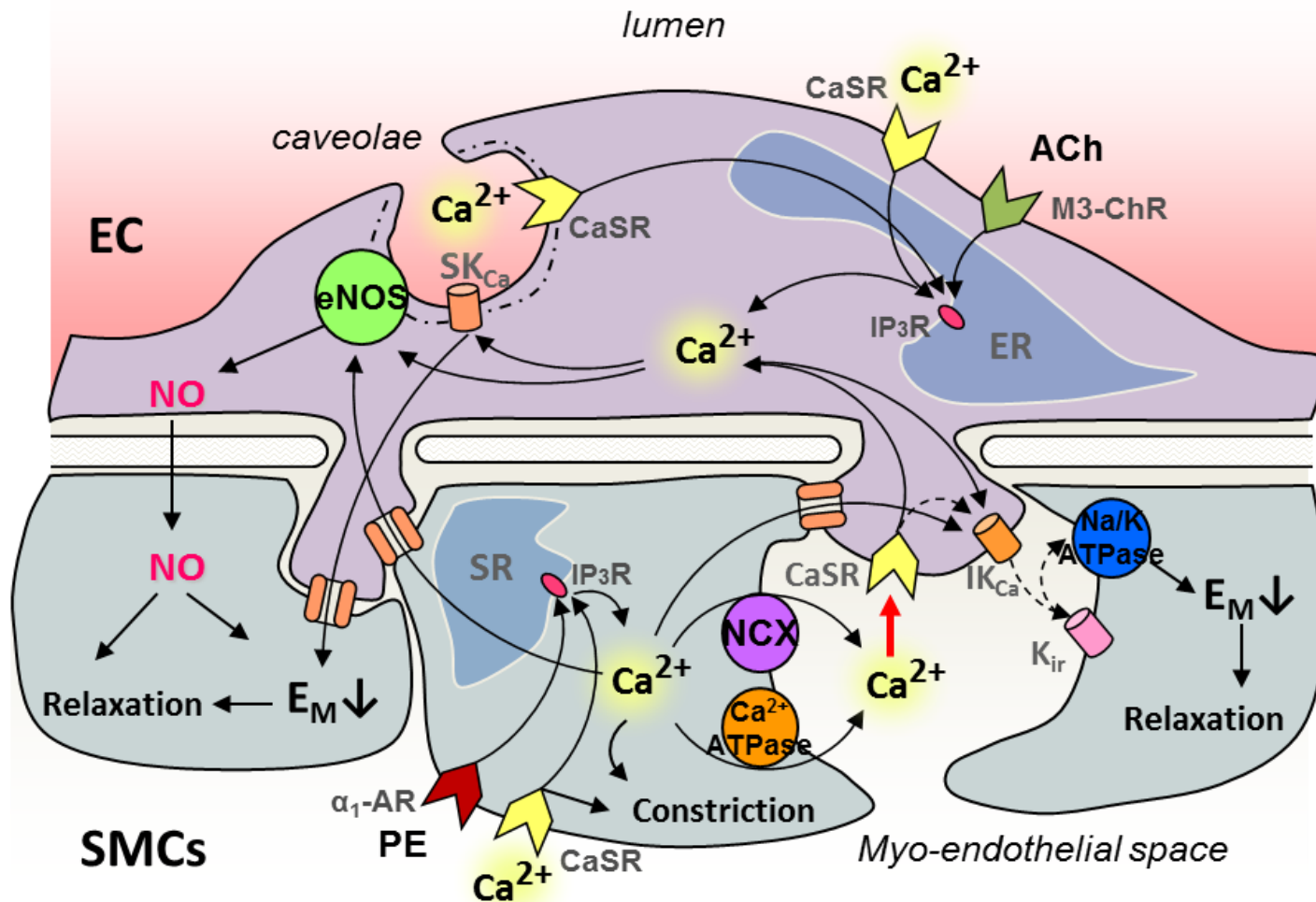
Advisors:
EM Brown
EF Nemeth
K Seuwen



CU expertise

- *In vitro* studies: molecular & cell biology, biophysics (electrophysiology/Ca imaging), primary cell isolation and maintenance, stem cell biology (iPSc and ESc)
- *Ex vivo* studies, organ culture & tissue slice models (lung, kidney, brain)
- *In vivo* studies: blood pressure (tail cuff), metabolic cage studies, pre-clinical models of inflammatory lung diseases (in collaboration with the School of Pharmacy at CU)
- Access to core facilities: MR imaging, PET, radiology, genomics, live cell imaging/confocal microscopy

“Multifaceted” work has shown a crucial role for the CaSR in the control of blood pressure and maintenance of vessel tone



CU deliverable

2.2	Use of pharmacological CaSR modulators in <i>in vitro</i> cellular models of AD determined	WP2	BIOT	PDE	CO	42
2.3	Use of pharmacological CaSR modulators in blood pressure control and vascular calcification determined	WP3	CU	PDE	CO	36
2.4	Role of CaSR in pancreatic islet hormone secretion described	WP2	UL	PDE	CO	36

To be changed to: *“Use of pharmacological CaSR modulators in inflammatory lung diseases determined”*

Rationale for changing the project

1. A major research focus in our laboratories
2. Inflammatory lung disorders are a large area of unmet medical need and a disease of ageing
3. Possibility for the PhD student to contribute to all aspects of preclinical to clinical drug development
4. Background funding from ongoing work
5. Exposure to technology transfer, IP-related issues and spinout opportunity

Aims of the PhD project at CU

- *In vivo* studies to test efficacy of calcilytics in difficult-to-treat asthma:
 - Steroid-resistant asthma
 - Steroid-sparing
 - Influenza virus exacerbations
- *In vitro* studies of human bronchial epithelial cells to investigate how the CaSR contributes affects:
 - Proliferation
 - Epithelial barrier integrity
 - Mucus secretion
 - Mucociliary dysfunction
 - Gene/protein expression
 - Fluid secretion