

DPMM Winter School 2023

May 12th, 2023

University of Eastern Finland – Snellmania – Kuopio

7:45 – 8:15	Registration, poster set up (SN lobby)
8:15 – 9:00	Opening and keynote lecture (SN100)
8:15	Opening words <i>Katja Kanninen (DPMM vice chair)</i> <i>Jenni Küblbeck (DPMM coordinator)</i>
8:30	Keynote lecture <i>Eino Solje, Director of UEF Brain Research Unit</i>
9:00 – 9:50	Session I – oral presentations / poster pitches (SN100) <i>Chairs: Pracheta De, Elena Ppali</i>
9:00 Sohvi Ohtonen	<i>Impact of diesel-exhaust derived air pollution on transcriptome and functionality of iPSC-derived microglia</i>
9:10 Tomi Hietanen	<i>Effects of C9orf72 hexanucleotide repeat expansion on the function of FTD patient-derived iPSC-microglia</i>
9:20 Juha Valjakka	<i>Correlation of MB-SWIFT fMRI with neuronal activity during sensory stimulation in anesthetized and awake rats</i>
9:30 Lenka Dvoráková	<i>Association of thalamic neuroinflammation and the functional connectivity in a rat model of traumatic brain injury – a longitudinal study</i>
9:40 Aravinth Ravichandran	<i>Hyperpolarized metabolic magnetic resonance imaging of cerebral ischemia at low magnetic field (poster pitch)</i>
9:45 Buddika Jayasingha	<i>A deep learning approach for identification of metabolic states in leukemia cells (poster pitch)</i>
9:50 – 11:00	Poster Session I / Coffee and sponsor exhibition (SN lobby) <i>Odd numbered posters</i>
11:00 – 11:50	Session II – oral presentations / sponsor talks (SN100) <i>Chairs: Sini Pitkänen, Jonna Niskanen</i>
11:00 Mustafa Beter	<i>SproutAngio: An Open-Source Bioimage Informatics Tool for Quantitative Analysis of Sprouting Angiogenesis and Lumen Space</i>
11:10 Sonja Koivukoski	<i>Unstained tissue imaging and virtual HE-staining of histological whole slide images: an assessment of histological feasibility</i>
11:20 Mireia Gómez-Budia	<i>Spiked up microglia-containing neural organoid model</i>
11:30 Sponsor talk	<i>Finnadvance</i> <i>“Highly scalable and automation compatible organ-on-chip platforms for relevant in vitro models”</i>
11:40 Sponsor talk	<i>Kuopio Center for Gene and Cell Therapy (KCT)</i> <i>“What do we do at KCT Oy”</i>

11:50 – 13:20	Lunch and exhibition (SN lobby)
13:20 – 14:10	Session III – oral presentations / poster pitches (SN100) <i>Chairs: Sohvi Ohtonen, Ahmed Mohamed</i>
13:20 Roosa Kaarijärvi	<i>DPYSL5 is Highly Expressed in treatment-induced Neuroendocrine Prostate Cancer and Promotes Cellular Stemness Through Activation of Polycomb Repressive Complex 2</i>
13:30 Kirsi Kainulainen	<i>M1 macrophages drive prostate cancer stem cell plasticity by stimulating the expression of NANOG, SOX2 and CD44</i>
13:40 Kaisa Mäki-Mantila	<i>Hyaluronan coated extracellular vesicles from melanoma cells promote mixed M1/M2 phenotype on macrophages</i>
13:50 Sanni Moisio	<i>KRAS deletions are associated with fast treatment response in ETV6::RUNX1 leukemia</i>
14:00 Johannes Hiltunen	<i>Oncogenic versus tumor suppressive actions of glucocorticoid receptor in prostate cancer (poster pitch)</i>
14:05 Bharadwaja Velidendra	<i>Transcriptional regulation of anti-inflammatory glucocorticoid signaling (poster pitch)</i>
14:10 – 15:20	Poster Session II / Coffee and sponsor exhibition (SN lobby) <i>Even numbered posters</i>
15:20 – 15:50	DPMM Board – panel discussion (SN100) <i>Chair: Jenni Küblbeck (DPMM coordinator)</i>
15:50 – 16:30	Session IV – oral presentations (SN100) <i>Chairs: Tomi Hietanen, Meheli Banerjee</i>
15:50 Tanja Turunen	<i>Cell-type-specific characterization of miRNA gene dynamics in immune cell subpopulations during aging and atherosclerosis disease progression at single-cell resolution</i>
16:00 Valeria Iannone	<i>Aldafermin-producing Escherichia coli Nissle 1917 improved metabolic pathways of non-alcoholic fatty liver disease murine model</i>
16:10 Sini Pitkänen	<i>Functional effects of phthalates in vitro and in vivo</i>
16:20 – 16:40	Introduction of UEF Doctoral researchers' association (ItäVä) (SN100) <i>Lenka Dvoráková</i>
16:40 – 16:50	Closing and Best DPMM thesis for 2022 (SN100) <i>Katja Kanninen (DPMM vice chair)</i> <i>Jenni Küblbeck (DPMM coordinator)</i>
18:00	WinterSchool 2023 Dinner at Restaurant Utu (Sokos Hotel Puijonsarvi)

Name	Poster (P) or poster pitch (PP) number	Title
Sara Gröhn	P1	Advanced dMRI methods in the evaluation of Ngb treatment for ischemic stroke
Elena Ppali	P2	Endo-lysosomal dysfunction and patient engagement in neurodegenerative diseases: Focus on the PGRN-SORT1 pathway
Mohammad Khateri	P3	Noisy-Reference Image Super-Resolution: Application to 3D Electron Microscopy
Simone Adinolfi	P4	NRF2 alters glucose oxidation in NRF2-active non-small cell lung cancer cells
Omar Narvaez Delgado	P5	Unsupervised tissue classification by massively multidimensional diffusion-relaxation correlation MRI
Tommi Patinen	P6	Dissecting the protein interactome of wild type and lung cancer associated gain-of-function mutants of NRF2
Melina Estela Dalmau	P7	Histological classification of tissue properties of the rat brain using Gabor filters
Natallie Kajevu	P8	Gene Expression Profile as a Predictor of Seizure Liability
Kseniia Bureiko	P9	Machine learning based modelling of transcriptional responses to glucocorticoids
Meheli Banerjee	P10	Temporal evolution of molecular gene regulation in different time windows post traumatic brain injury
Iida Rätty	P11	Ex vivo imaging of subacute myocardial ischemia with ultra-short echo time 3-D quantitative T1-mapping MRI in mice
Johnson Lok	P12	Engineered Escherichia Coli Nissle expressing IGF1 and FGF19 reduce liver fat accumulation and restore microbial equilibrium in a non-alcoholic fatty liver disease mice model
Elisa Arokoski	P13	Utilizing Δ FosB activity to localize neuronal hyperexcitability in APP/PS1 mouse modeling Alzheimer's Disease
Veronika Górová	P14	Nasal dysbiosis and Alzheimer's disease
Pedro Andrade	P15	Poor sleep quality in TBI animals with epileptiform activity

Kaustubh Jadhav	P16	Evaluation of the value of new biomarkers for mental health dysfunction in adolescents: Assessing the opinion of parents
Maria Gotkiewicz	P17	3D MICROSCOPY UNRAVELS DETAILS IN AMYLOID PLAQUE-MICROGLIA INTERACTION IN APP/PS1 MICE
Laura Mussalo	P18	Emissions from modern engines induce distinct effects in human olfactory mucosa cells, depending on fuel and aftertreatment
Sara Häkli	P19	EFFECT OF SLEEP-RELATED EPILEPTIC SPIKING ON MEMORY CONSOLIDATION IN A MOUSE MODEL OF ALZHEIMER'S DISEASE
Muhammad Ali Shahbaz	P20	The establishment of human-derived 3D cultures to decipher the cross-talk between Alzheimer's disease and SARS-CoV-2 in the olfactory mucosa
Noora Leppänen	P21	Suppression of homeobox transcription factor reverses antiandrogen induced lineage plasticity shift in prostate cancer
Heikki Kyykallio	P22	CD44 MEDIATES INTERACTIONS OF HYALURONAN-COATED EXTRACELLULAR VESICLES WITH TARGET CELLS
Andrea Hanel	P23	Impact of sex hormones on the developing immune system at single cell resolution
Heli Jeskanen	P24	Characterization of the Alzheimer's disease-associated risk variant in progranulin indicates a hyperactivation of microglia around β -amyloid plaques
Konstantin Ivanov	P25	Deep variational autoencoder modelling of multimodal single-cell data resolves molecular fingerprints of pre-leukemic states
Mehvash Godiwala	P26	GCKR in mediating the risk of metabolic dysregulation and diabetes
Mari Lahnalampi	P27	Sequential drug treatment targeting cell cycle and cell fate regulatory programs blocks non-genetic cancer evolution in acute lymphoblastic leukemia
Negar Pouyanfar	P28	The effect of atherosclerosis risk variants on transcriptional gene regulation in endothelial cells
Shekhar Singh	P29	Development of an in vitro platform for preclinical investigations on progressive myoclonic epilepsy type 1 (EPM1)
Jonna Niskanen	P30	IFN γ induced inflammatory profile on human microglia is enhanced on interaction with alpha-synuclein fibrils
Maria Barbiera	P31	Investing the role of ADAMTS18 in angiogenesis

Sanni Peltonen	P32	Studying the role of pericytes in Parkinson's disease
Pracheta De	P33	Development of innovative intracardiac gene therapy using a novel lentiviral vector to treat heart failure
Tuuli-Maria Sonninen	P34	Different cell culture systems alter the function and transcriptome of iPSC-derived endothelial cells.
Minja Heikkilä	P35	Modeling myocardial infarction recovery in porcine heart: reperfusion injury and inflammatory tissue environment
Ahmed Mohamed	P36	Biometrics for the impact of acute air pollution on human peripheral immunity
Laura Helminen	P37	Chromatin accessibility and pioneer factor FOXA1 shape glucocorticoid receptor action in prostate cancer
Olga Neustroeva	P38	EV isolation kit comparison for stroke biomarker discovery
Miika Kiema	P39	MRI-derived wall shear stress predicts pathological changes in the ascending aortic wall in patients with thoracic aortic aneurysm
Flavia Scoyni	P40	Alzheimer's disease-induced phagocytic microglia express a specific profile of coding and non-coding RNA
Valtteri Syvänen	P41	Unveiling the role of gut changes in Parkinson's disease
Valeriia Sitnikova	P42	ACTIVITY OF PIEZO1 RECEPTORS IN RED BLOOD CELLS AS A NOVEL FUNCTIONAL BIOMARKER FOR ALZHEIMER'S DISEASE
Aravinth Ravichandran	PP43	Hyperpolarized metabolic magnetic resonance imaging of cerebral ischemia at low magnetic field
Bharadwaja Velidendra	PP44	Transcriptional regulation of anti-inflammatory glucocorticoid signaling
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