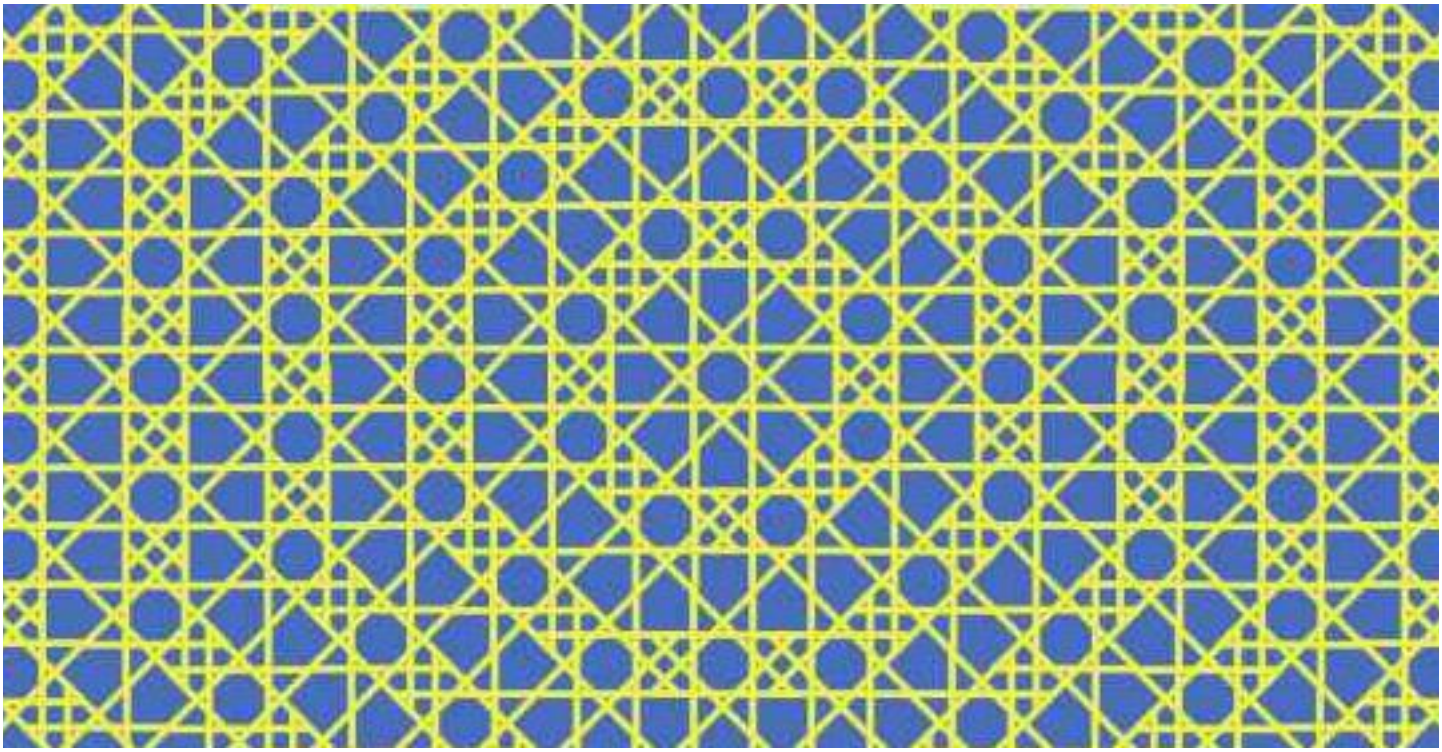

Single cell biology meets diagnostics

12th International workshop on approaches to single cell analysis

Program

March 4 –5th, 2019

Major sponsors
SciLifeLab | Uppsala University | Waseda University | Japan Science and Technology Agency | CBBD-OIL | 10X Genomics | Fluidigm | Illumina | Mission Bio

University Main Building, Hall X, Uppsala, Sweden

Single cell biology meets diagnostics workshop

Monday, March 4th

REGISTRATION	**8:00**	
	9:00	**OPENING ADDRESS Ulf Landegren, Uppsala University**
SESSION I		**SINGLE CELL BIOLOGY I**
	9:15	**Nikolaus Rajewsky, Max Delbrück Center for Molecular Medicine** Function of RNA
	9:40	**Barbara Treutlein, MPI Leipzig** Reconstructing human organ development using single-cell genomics
	10:05	**Yuichi Taniguchi, RIKEN** Nucleosome-level 3D organization of the genome
	10:20	**Pawel Zajac, Illumina -** *sponsored* Exploring biological systems at single-cell resolution with Illumina sequencing
	10:30	**COFFEE BREAK**
SESSION II		**SINGLE CELL TECHINOLOGIES I**
	11:00	**Takehiko Kitamori, University of Tokyo** Comprehensive process integration onto nanofluidic device for stimulus-induced cytokine analysis from single living cell
	11:25	**Katsuyuki Shiroguchi, RIKEN** The combination of live imaging and whole gene expression analysis for single cell studies
	11:40	**Caroline Gallant, Uppsala University** mRNA and protein single cell analysis in a dynamic cellular system
	11:55	**Sadao Ota, University of Tokyo** Machine learning-driven “Imaging” flow cytometry
	12:10	**Annika Branting, 10X Genomics** - *sponsored* Resolving biology using 10x Genomics single cell technologies
	12:20	**LUNCH**
SESSION III		**IMAGING**
	13:30	**Carolina Wählby, Uppsala University** Single cell analysis by digital image processing of tissue and time-lapse data
	13:55	**Itaru Hamachi, Kyoto University** Chemical labeling and imaging of neurotransmitter receptors in live cells
	14:20	**Yasufumi Takahashi, Kanazawa University** Single cell analysis using scanning probe microscopy
	14:35	**Masayasu Taki, Nagoya University** Photostable dyes for super-resolution imaging
	14:50	**Masahiro Ando, Waseda University** Label-free molecular distribution imaging of single-cells by Raman hyperspectral analysis
	15:05	**POSTER SESSION & COFFEE BREAK**
SESSION IV		**SINGLE CELL BIOLOGY II**
	16:30	**Sten Linnarsson, Karolinska Institutet** Developmental dynamics of the human brain by single-cell transcriptomics
	16:55	**Christopher Walsh, Harvard Medical School** Somatic mutation in single human neurons: from development to degeneration
	17:20	**Joakim Klar, Uppsala University** Single cell sequencing of trisomy 21 iPSC-derived neural cells uncovers perturbed cell differentiation
	17:35	**Etsuo Susaki, University of Tokyo** Whole-organ/body analysis of multicellular systems by CUBIC platform
	18:30	**CONFERENCE BANQUET**

Tuesday, March 5th

SESSION V		**IMMUNITY**
	9:00	**Petter Brodin, Karolinska Institutet** Human systems immunology for precision medicine
	9:25	**Andreas Schlitzer, University of Bonn** Revisiting the myeloid cell space - one cell at a time
	9:50	**Laufey Geirsdottir, Weizmann Institute of Science** Cross-species analysis of microglia across 450 million years of evolution
	10:05	**Eiichi Tamiya, Osaka University** Single-cell chip array for analyzing single cell functional profile in immune systems
	10:20	**Roberto Spada, Fluidigm** - *sponsored* Bridging the gap: Advancing translational science from genomes to tissue morphology using nanoscale microfluidics and Cytof technology
	10:30	**COFFEE BREAK**
SESSION VI		**CANCER**
	11:00	**Richard Rosenquist Brandell, Karolinska Institutet** Single cell sequencing in lymphoid malignancies: biological and clinical insights
	11:25	**Koichi Takahashi, MD Anderson** Single cell atlas of driver mutations in AML
	11:50	**Pirkko Mattila, Institute for Molecular Medicine Finland** Single cell gene expression profiling of AML patients in different disease states
	12:15	**Shinichi Hashimoto, Kanazawa University** Single-cell transcriptome analysis reveals the gene exchange of cancer cells with high malignant potential and immune cells in endometrioid adenocarcinoma tissues
	12:35	**LUNCH**
SESSION VII		**SINGLE CELL BIOLOGY III**
	13:30	**Christer Betsholtz, Uppsala University** Single cell RNASeq analysis of the vasculature
	13:55	**Jun Kunisawa, NIBIOHN** Diversity of intestinal immune cells and commensal bacteria for the control of health and diseases
	14:20	**Özden Baltekin, Uppsala University** Single cell growth measurement enables antibiotic susceptibility testing for bacteria within a few minutes directly from patient samples
	14:35	**Masahito Hosokawa, Waseda University** Analysis of uncultured microbes by single-cell genome sequencing with microfluidics
	14:50	**Robert Durruthy-Durruthy, Mission Bio** - *sponsored* Precision with Single-Cell DNA Sequencing: Resolving Genetic Heterogeneity in Blood and Solid Tumors
	15:00	**COFFEE BREAK**
SESSION VIII		**SINGLE CELL TECHNOLOGIES II**
	15:30	**Sumio Sugano, University of Tokyo** A single cell research program in Japan: CREST program
	15:40	**Nozomu Yachie, University of Tokyo** DNA barcode technologies to dissect heterogeneous biological systems
	15:55	**Youna Lee, Toyohashi Univ. Technology** High-resolution, high-speed image sensor for real-time monitoring of extracellular ion activities.
	16:10	**Yuzuru Takamura, JAIST** Development of a molecular analysis chip for single cells on 2d-plane with positional information
	16:25	**Ryo Negishi, TUAT** Integrated system for manipulation and genetic analysis of single circulating tumor cells
	16:40	**Wataru Aoki, Kyoto University** Cellomics approach for high-throughput functional annotation of Caenorhabditis elegans neural network
	16:55	**CLOSING ADDRESS Hideki Kambara**