

Swiss Society of Medical Genetics



SSMGAnnual Meeting 2021 YOUNG INVESTIGATOR DAY January 21st and 22nd, 2021

www.sgmg.ch/meeting-2021

ORGANIZERS

Anita Rauch Institute of Medical Genetics, University of Zurich

Björn Kleijkers Institute of Medical Genetics, University of Zurich

Sven Cichon Institute of Medical Genetics and Pathology, University of Basel

REGISTRATION FEES

SSMG-Member CHF 100.– Non-Member CHF 175.– Trainee/PhD student CHF 50.– General Assembly: For members only Free of charge

CME CREDIT POINTS

FMH: 3 CME points/day

REGISTRATION

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SUPPORT

Medworld AG Sennweidstrasse 46 6312 Steinhausen registration@medworld.ch Helpline Tel +41 41 748 23 00



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January 21 st , 2	2021 – Young Investigator Day ONLINE VENUE
	PART I – PRESENTATIONS OF THE FINALISTS FOR THE YOUNG INVESTIGATOR AWARD 2020 Chairpersons Sven Cichon, Basel, Anita Rauch Zurich
14.05 – 14.15 h	Welcome Address Anita Rauch, Zurich / Sven Cichon, Basel
14.15 – 16.00 h	Oral Presentations 1–7 with Q&A (15 min. each) for details see page 3
16.00 – 16.30 h	Break
	PART II – PRESENTATIONS OF ABSTRACTS
16.30 – 18.00 h	Oral Presentations 8–13 with Q&A (15 min. each) for details see page 3
18.00 – 18.30 h	Break
January 21 st , 2	2021 – Evening Lecture ONLINE VENUE
	PART III – INVITED EVENING LECTURE Chairperson Anita Rauch, Zurich
18.30 – 19.30 h	Polygenic Risk Models – what are they and are they ready for the clinic? Cecile J.W. Janssens, Atlanta USA
	Closing Remarks Day 1
19.30 – 19.35 h	Anita Rauch, Zurich
19.30 – 19.35 h	
	Anita Rauch, Zurich
January 22 nd ,	Anita Rauch, Zurich 2021 – Scientific & Business Meeting Day Opening and Welcome Address
January 22nd, 09.00 – 09.15 h	Anita Rauch, Zurich OPening and Welcome Address Anita Rauch, Zurich / Sven Cichon, Basel OPening and Welcome Address
January 22nd, 09.00 – 09.15 h 09.15 – 09.25 h	Anita Rauch, Zurich ONLINE VENUE Opening and Welcome Address Anita Rauch, Zurich / Sven Cichon, Basel Announcement of the Winner of the SSMG Young Investigator Award 2020 Gene Therapy for Monogenetic Diseases of the Immune System
January 22nd, 09.00 – 09.15 h 09.15 – 09.25 h 09.25 – 10.10 h	Anita Rauch, Zurich Opening and Welcome Address Anita Rauch, Zurich / Sven Cichon, Basel Announcement of the Winner of the SSMG Young Investigator Award 2020 Gene Therapy for Monogenetic Diseases of the Immune System Janine Reichenbach, Zurich Ribosomal DNA – an epigenetic sensor of gene-environment interactions
January 22nd, 09.00 – 09.15 h 09.15 – 09.25 h 09.25 – 10.10 h 10.10 – 10.55 h	Anita Rauch, Zurich ONLINE VENUE Opening and Welcome Address Anita Rauch, Zurich / Sven Cichon, Basel Announcement of the Winner of the SSMG Young Investigator Award 2020 Gene Therapy for Monogenetic Diseases of the Immune System Janine Reichenbach, Zurich Ribosomal DNA – an epigenetic sensor of gene-environment interactions Vardhman Rakyan, London UK
January 22 nd , 09.00 – 09.15 h 09.15 – 09.25 h 09.25 – 10.10 h 10.10 – 10.55 h 10.55 – 11.25 h	Anita Rauch, Zurich CO21 – Scientific & Business Meeting Day Opening and Welcome Address Anita Rauch, Zurich / Sven Cichon, Basel Announcement of the Winner of the SSMG Young Investigator Award 2020 Gene Therapy for Monogenetic Diseases of the Immune System Janine Reichenbach, Zurich Ribosomal DNA – an epigenetic sensor of gene-environment interactions Vardhman Rakyan, London UK Short Break Current challenges in Mendelian Genetics: variant interpretation, oligogenicity, phenotypic variability and genetic modifiers – lessons learned from the ciliopathies
January 22 nd , 09.00 – 09.15 h 09.15 – 09.25 h 09.25 – 10.10 h 10.10 – 10.55 h 10.55 – 11.25 h 11.25 – 12.00 h	Anita Rauch, Zurich Opening and Welcome Address Anita Rauch, Zurich / Sven Cichon, Basel Announcement of the Winner of the SSMG Young Investigator Award 2020 Gene Therapy for Monogenetic Diseases of the Immune System Janine Reichenbach, Zurich Ribosomal DNA – an epigenetic sensor of gene-environment interactions Vardhman Rakyan, London UK Short Break Current challenges in Mendelian Genetics: variant interpretation, oligogenicity, phenotypic variability and genetic modifiers – lessons learned from the ciliopathies Ruxandra Bachmann-Gagescu, Zurich Satellite Symposia – organized by Novartis A new vision in retinal gene therapy: From genetic diagnosis to treatment Hendrik Scholl, Professor and Chairman Department of Ophthalmology, University of Basel, Director Institute of Molecular and Clinical Ophthalmology Basel (IOB) Carlo Rivolta, Head of the Ophthalmic Genetics Group at Institute of Molecular and Clinical

Business Meeting of the Swiss Society of Medical Genetics

14.30 – 17.00 h



PROGRAM

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January 21st, 2021 – ORAL PRESENTATIONS **ONLINE VENUE** 14.15 – 14.30 h **Oral Presentation 1** Variants in the USP48 ubiquitin hydrolase are associated with Autosomal Dominant Non-Syndromic Hereditary Hearing Loss Sissy Bassani, Lausanne 14.30 - 14.45 h **Oral Presentation 2** New insights into the clinical and molecular spectrum of the novel CYFIP2-related neurodevelopmental disorder and impairment of the WRC-mediated actin dynamics Anais Begemann, Zurich 14.45 - 15.00 h **Oral Presentation 3** Chondrodysplasia and growth failure in children after early hematopoietic stem cell transplantation for non-oncologic disorders: a apparently non-genetic phenocopy revealing a possible role for cartilage stem cells Lorenzo Botto, Utah USA 15.00 - 15.15 h **Oral Presentation 4** Tanycytes, ependymal cells and Co. A single cell analysis of brain third ventricle Maxime Brunner, Lausanne 15.10 - 15.30 h **Oral Presentation 5** Whole genome sequencing: why does it help? Katarina Cisarova, Lausanne 15.30 - 15.45 h **Oral Presentation 6** Medical Therapy of Vascular Ehlers-Danlos Syndrome: Challenging the Paradigm of Interchangeable Antihypertensive Drugs Nicolo Dubacher, Zurich 15.45 - 16.00 h **Oral Presentation 7** Newborn screening for Severe Combined Immunodeficiency (SCID) using combined cell receptor excision circles (TREC)/kappa-deleting element recombination element (KREC) assays and next generation sequencing: diagnostic yield from the newly established Swiss programme Magdeldin Elgizouli, Zurich 16.00 - 16.30 h Break 16.30 - 16.45 h **Oral Presentation 8** Atonal homolog 7 as molecular basis for optic nerve hypoplasia and other retinal diseases David Grubich Atac, Zurich 16.45 - 17.00 h **Oral Presentation 9** SwissGenVar: A genetic data-sharing platform and knowledge-database for harmonization and up-scaling of clinical grade interpretation of genetic variants to foster personalized health care in Switzerland Dennis Kraemer, Zurich 17.00 – 17.15 h **Oral Presentation 10** Long-range PCR-based NGS applications to diagnose Mendelian retinal diseases Jordi Maggi, Zurich 17.15 - 17.30 h **Oral Presentation 11** Investigating the role of the Bardet-Biedl protein Bbs1 in zebrafish using -omics approaches Markus Masek, Zurich 17.30 – 17.45 h **Oral Presentation 12** Differentially expressed genes reflect disease-induced rather than disease-causing changes in the transcriptome Eleonora Porcu, Lausanne 17.45 – 18.00 h **Oral Presentation 13** CoverageMaster: a clinical grade and user oriented CNV caller Melivoia Rapti, Lausanne



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January 21 st ·	- 22 nd , 2021 – POSTERS PRESENTATIONS ONLINE VENUE
POSTER 2	Intellectual disability, immune deficiency, autoimmunity, cutis marmorata and stroke: a pleiotropic disorder in four individuals associated with a Swiss founder mutation in the TPP2 gene Maria Isis Atallah, Lausanne
POSTER 3	Exome sequencing in prenatal diagnosis: results from 74 cases Xavier Blanc, Geneva
POSTER 4	Genetic findings in a Swiss cohort of patients with palmoplantar keratoderma Bettina Burger, Basel
POSTER 5	Biallelic loss of function variants in RFLNA and spondylo-carpal-tarsal synostosis syndrome Belinda Campos-Xavier, Lausanne
POSTER 6	New Insights into Clinical Whole-Genome Sequencing: Co-Occurring Rare Diseases and Pharmacogenetic Profiling Sylvan Caspar, Zurich
POSTER 7	PGT-M for a de novo case of Hereditary Multiple Exostoses (HME) Nadia Fiandanese, Bioggio
POSTER 8	Gene ontology enrichment analysis of renal agenesis: improving prenatal molecular diagnosis Silvia Kalantari, Turin IT
POSTER 9	Whole Genome Sequencing reveals bi-allelic ERGIC1 deletion in mild congenital arthrogryposis Caterina Marconi, Geneva
POSTER 10	Targeted prenatal exome sequencing in a series of fetal structural anomalies de- tected by ultrasonography: first experience of the University Hospitals of Geneva Lina Quteineh, Geneva
POSTER 11	Variants in calcium channel genes (CACNA1A, CACNA1C, CACNA1E) associated with noncanonical phenotypes: a common theme? Beryl Royer-Bertrand, Lausanne
POSTER 12	Loss-of-function and missense variants in NSD2 cause decreased methylation activity and are associated with a distinct developmental phenotype Paolo Zanoni, Zurich