



Topic	Description / Key words	Target audience	Speaker					
1. Molecular Biology, Cell Biology and Biochemistry								
1.1	Enzymology	Sugar-coated protein: How cells produce complex glycans with diverse biological functions from simple sugars.	teenager	Prof. Kaspar Locher			Institute of Molecular Biology and Biophysics Department of Biology	ETH
2. Microbiology								
2.1	Microbial Diversity	Seeing the invisible: A look and insight into the "invisible" world of microbes	teenager	Prof. Shini Sunagawa			Institut of Microbiology Department of Biology	ETH
2.2	Metabolic interactions in microbial communities	Our microbes and us: Micro-organisms live in and on us and influence our health and well-being in a variety of ways	teenager	Prof. Uwe Sauer			Institute of Molecular Systems Biology Department of Biology	ETH
2.3	Pirates of the microbial world	How microbes hunt with grappling hooks and harpoons	teenager	Prof. Martin Pilhofer			Institute of Molecular Biology and Biophysics Department of Biology	ETH



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3. Human Biology and Medicine								
3.1 The Immune System	Our amazing immune system - insight into it's organisation and function	teenager	Prof.	Annette	Oxenius	Institute of Microbiology Department Biology	ETH	
3.2 At the Center of the Disease	When form matters: structural alterations in proteins for the diagnosis of neurodegenerative diseases	teenager	Prof.	Paola	Picotti	Institute of Molecular Systems Biology Department of Biology	ETH	
3.3 Metabolism and Metabolic Disorders	RNA: more than the central dogma - the role of messenger RNA, transfer RNA & ribosomal RNA in the process of protein formation is well understood. But RNA can do more than just build proteins: it can build and break down molecules, silence genes, protect chromosomes, react to our environment and both recognise and cure diseases.	teenager	Prof.	Markus	Stoffel	Institute of Molecular Health Sciences Department of Biology	ETH	
3.4 Gut microbiome, antibiotic resistance, vaccination, new vaccines	Vaccine, antibiotics, bacteria, microbiota, metabolic diseases, neonatal health, salmonella, E. coli, breath analysis	all target groups	Prof.	Emma	Slack	Institute of Food, Nutrition and Health Department of Health Sciences and Technology	ETH	
3.5 Tissue Engineering	Substitutes, wound healing, macrophage, regenerative medicine and immunotherapy	all target groups		Muhammad	Zohaib Iqbal	Tissue Biology Research Unit	KISPI / UZH	
3.5 Healthy Longevity and Geroscience Medicine of Tomorrow	Healthy longevity, precision-medicine biology of aging, personalised prevention targeting biology of aging	teenager, adults	Prof.	Heike	Bischoff	Department of Aging Medicine	USZ / UZH	



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4. Plant Sciences								
4.1	Plant Biochemistry	Strength in starch research: Researching unique aspects of plant carbohydrate metabolism for sustainable agriculture and healthier foods; Starch biosynthesis. How basic scientific research on a tiny garden weed yields discoveries that could improve the world's major food crops	teenager	Prof. Samuel Zeeman			Institute of Molecular Plant Biology Department of Biology	ETH
4.2	Plant Developmental Biology	Phloem development and function: Development of sugar transport pathways in plants. How do cells become part of the tubes that transport sugar from leaves to roots, flowers and fruits?	teenager	Dr. Elisabeth Truernit			Institute of Molecular Plant Biology Department of Biology	ETH
4.3	Plant Microbiology	Plants, rhizosphere, bacteria, microorganism, agriculture	all target groups	Dr. Marta Torres			Department of Plant and Microbial Biology	UZH
5. Environmental Sciences								
5.1	Biodiversity	A brief history of life on planet Earth. Why are there so many species? Species depend on each other. The services of Biodiversity	children	Prof. Jordi Bascompte			Department of Evolutionary Biology and Environmental Studies	UZH