

Appendix 1, table 1: Candidates for selection decision for the second cohort of SciLifeLab PULSE postdocs (including reserve list)

Proposal	Proposal title	Name of applicant	Gender	Host university	Track	Score written	Score Interview 1	Score Interview 2	Weighted score written	Weighted score Interview 1	Weighted score Interview 2	FINAL SCORE*
PULSE_079	Changing disease ecologies: human-pathogen evolution in Northern Europe and beyond, from the Neolithic to the present	Maia Lopopolo	F	UU	Academic	4,950	4,733	4,833	2,228	1,657	0,967	4,851
PULSE_071	Spatially Resolved Host-Pathogen Interactions	Miriam Herbert	F	SU	Academic	4,840	4,578	4,666	2,178	1,602	0,933	4,713
PULSE_098	Adaptive Event-Triggered Microscopy for Nanoscale Imaging of Synaptic Membrane Dynamics	Lenny Ludwig Reinikensmeier	M	KTH	Academic	4,626	4,689	4,888	2,082	1,641	0,978	4,700
PULSE_095	Tracking Active Phage Replication in Freshwater Bacteria Across Diurnal Light-Dark Cycles Using BONCAT-Click Chemistry	Alicia Garcia Roldán	F	SLU	Academic	4,697	4,489	4,944	2,114	1,571	0,989	4,673
PULSE_048	Microsecond time-resolved cryo-EM analysis of bioenergetic complexes	Yat Kei Lo	M	UU	Academic	4,474	4,733	4,888	2,014	1,657	0,978	4,648
PULSE_002	Spatial multiomic characterization of the effects of lithium in medulloblastoma.	Michael Ritter	M	KTH	Academic	4,417	4,556	4,833	1,988	1,594	0,967	4,549
PULSE_099	Deep learning-enhanced 3D spatial transcriptomics to map the glioblastoma vascular niche across therapy stages	Johannes Wrth	M	UU	Academic	4,597	4,444	4,611	2,069	1,556	0,922	4,546
PULSE_020	Temperature Tolerance in Atlantic Herring (TeTAH)	Qiaoling Deng	F	UU	Academic	4,782	4,067	4,722	2,152	1,423	0,944	4,520
PULSE_052	Mapping islet cell vulnerability and resilience in human pancreatic tissue for type 1 diabetes Directed	Alana Mullins	F	GU	Academic	4,148	4,733	4,888	1,867	1,657	0,978	4,501
PULSE_109	AI-Driven Discovery of Antimicrobials through Ribosome Dynamics Profiling	Joan Serrano Quilez	M	KI	Academic	4,264	4,556	4,833	1,919	1,594	0,967	4,480
PULSE_060	UKB_Nanopore_mQTLs	Wlona Oliveros Diez	F	KTH	Academic	4,409	4,533	4,500	1,984	1,587	0,900	4,471
PULSE_100	Restoring immune tolerance with cellular reprogramming to treat type 1 diabetes.	Katherine Jane Hampton	F	LU	Academic	3,961	4,867	4,888	1,783	1,703	0,978	4,464
PULSE_108	Deciphering the mechanism of mitochondrial deoxynucleotide import	Sigurbjörn Markússon	M	SU	Academic	4,370	4,378	4,555	1,967	1,532	0,911	4,410
PULSE_114	The Diabetogenic Exposome: Mechanistic Discovery of Chemical Hazards and Microbial Therapeutics in the Gut-Pancreas Axis	Archisman Mahapatra	M	UU	Academic	4,390	4,156	4,833	1,976	1,454	0,967	4,397
PULSE_128	PIONICS - Predicting cancer immunotherapy outcomes via immune checkpoint network modeling, whole-interactome analysis, and latent cell state inference	Mikolaj Kockowski	M	KI	Academic	4,143	4,311	4,944	1,865	1,509	0,989	4,362
PULSE_089	Resolving the A673T Protection Paradox: Mitochondrial and Cellular Mechanisms in Alzheimer's Disease	Daria Korewo-Labelle	F	UU	Academic	4,374	4,067	4,722	1,969	1,423	0,944	4,336
PULSE_125	Investigating gas permeation across RBC membranes using molecular simulations	Eric J. Shinn	M	KTH	Academic	4,200	4,578	4,166	1,890	1,602	0,833	4,325
PULSE_045	Generative AI-guided development of biologic molecules to overcome tumor immune escape	Navid Delshad	M	KI	Entrepreneurial	3,987	4,462	4,777	1,794	1,562	0,955	4,311
PULSE_072	Conformational Signaling and AI-Driven Discovery of Allosteric Modulators for Frr3zeds(NOVA-FZD)	Serap Ipek Dingis Birgul	F	KTH	Entrepreneurial	4,267	3,956	4,944	1,920	1,384	0,989	4,293
PULSE_103	Beyond Structural Diversity: Testing the Thermodynamic Sensitivity of AI-Generated Protein Ensembles to Amino Acid Substitutions	Sukriti Sacher	F	LIU	Academic	4,097	4,267	4,722	1,844	1,493	0,944	4,281
PULSE_067	High-throughput quantitative mapping of sequence determinants of binding kinetics in transcriptional IDRs	Katerina Linhartová	F	SU	Academic	3,990	4,356	4,722	1,796	1,524	0,944	4,264
PULSE_064	Hi-NanoCUT&Tag: exploring protein-centric chromatin loops at single cell level	Davide Maestri	M	KI	Academic	4,404	3,933	4,444	1,982	1,377	0,889	4,247
PULSE_074	MitoPulse: Spatially Resolved Mitochondrial Signatures across Tumour Types - From Proteome to Metabolome to the Clinic	Ayusi Mondal	F	KI	Academic	4,289	3,911	4,722	1,930	1,369	0,944	4,243
PULSE_120	Predicting the Evolutionary Persistence of Target-Based Antibiotic Resistance Using Protein Language Models	Deekha Thakur	F	SU	Academic	3,921	4,311	4,555	1,765	1,509	0,911	4,184
PULSE_134	Plasmid-mediated bacteriocin dynamics in longitudinal human microbiomes	Kezia Drane	F	UMU	Academic	3,953	4,044	4,944	1,779	1,416	0,989	4,183
PULSE_082	A3-RESCUE: Lipid Mediated Structural and Functional Rescue of the Mutant Alpha-3 Na ⁺ /K ⁺ -ATPase	Beste Senem Degimenci Alper	F	KTH	Academic	4,128	3,889	4,722	1,856	1,361	0,944	4,163
PULSE_041	Early Immune Responders to Food Intake: Defining Gut Homeostasis and Links to Disease	Qianzhou Yu	M	KI	Academic	3,787	4,244	4,833	1,704	1,466	0,967	4,156
RESERVE LIST												
PULSE_124	GD2-Antibody Targeted Calcium Phosphate Nanotherapeutics for Precision Treatment of High-Risk Neuroblastoma	Aiswarya Chaudhuri	F	SU	Academic	3,616	4,089	4,833	1,717	1,431	0,967	4,115
PULSE_085	Wnt-Dependent Glycolytic Reinforcement under Glutamine Stress Creates a Therapeutic Vulnerability in Colorectal Cancer	Purbai Chakraborty	F	LIU	Academic	3,777	4,111	4,777	1,700	1,439	0,955	4,094
PULSE_087	LIPISCAN: Lipidomic and Pro-inflammatory Indicators for Stratified Cognitive Assessment of Neurological outcomes after Stroke and TBI	Priya Dev	F	ÖRU	Academic	4,382	3,867	3,833	1,972	1,353	0,767	4,092
PULSE_126	Magnetic Theranostic Nanoparticles for Integrated Diagnosis and Treatment of Osteoarthritis	Luca Morici	M	UU	Academic	4,030	3,911	4,444	1,814	1,369	0,889	4,071
PULSE_063	ART-T: AI-driven Regulatory Network Transformation of T-cells - A Foundation Model for Predicting T-cell States and Engineering Therapeutic Responses	Akshayata Naidu	F	KI	Academic	3,674	3,778	4,944	1,744	1,322	0,989	4,055
PULSE_101	Decoding relapse in pediatric brain tumors through integrative transcriptomics	Audrey Onfroy	F	UU	Academic	3,774	4,044	4,555	1,699	1,416	0,911	4,025
PULSE_059	Cellac-X: Deciphering Epigenetic Architecture of Sex-Bias in Cellac Disease via AI-Integrated Long-Read Sequencing	Maher Ahajjar	M	LIU	Academic	3,828	3,867	4,111	1,723	1,353	0,822	3,896

*The final evaluation score has been weighted as follows: written research proposal (45%), interview 1 (35%), and interview 2 (20%).