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## The national board of Science for Life Laboratory

### Minutes from board meeting nr 27 2017-11-07 (Stockholm)

**Present members:** Carl-Henrik Heldin (chair), Karin Dahlman-Wright (KI), Fredrik Elinder (LiU), Sophia Hober (KTH), Anders Karlhede (SU), Margareta Olsson Birgersson (industry representative) (until 12.00), Stellan Sandler (UU), Marianne Sommarin (UmU), Gunilla Westergren-Thorsson (LU)(until 12.00).  
**Other participants:** Olli Kallioniemi (Director), Siv Andersson (Co-Director), Annika Jenmalm Jensen (Infrastructure Director), Fredrik Sterky (secretary), Eva Molin, Mikaela Friedman (point 6-7), Ulf Pettersson (point 9)

#### Appendix:

A. Budget 2018

B. Approved applications within the National sequencing projects.

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#### 1. Meeting formalities

Carl-Henrik Heldin opened the meeting.

##### Decisions:

- The SciLifeLab board approved the minutes from meeting nr 26.
- The SciLifeLab board appointed Fredrik Elinder to approve the minutes in addition to the chair.

#### 2. Update from the Director

Olli Kallioniemi presented an update about SciLifeLab and current work within the management group (MG) and operations office (OO).

The board expressed their support for common announcements for SciLifeLab Fellow positions at the host universities (KI, KTH, SU and UU). The issue needs to be discussed between the management and the Integration Directors at their next meeting on December 7, 2017.

#### 3. Budget 2018

Olli Kallioniemi and Fredrik Sterky presented the suggested budget for 2018, both for the infrastructure and for MG and OO (appendix A). The board discussed on how the annual budget should be prepared and presented in the future.

##### Decision:

- The board approved the budget for 2018 according to Appendix A. The board asked the Director to present a plan for usage of surplus at the board meeting in February 2018.



## 4. Response to IAB

Olli Kallioniemi had prepared a suggested response together with MG and with input from host universities and other relevant stakeholder groups. The response answers all 42 recommendations from the IAB. Olli Kallioniemi and Carl-Henrik Heldin presented the suggested response to the report from the International Advisory Board (IAB). Each of the replies was discussed by the board and there were a number of minor comments. The IAB report to the board and the reply will be sent out by the board.

### Decisions:

- *The board approved the response with minor corrections and the addition of an abstract/summary, and asked the Director to produce a new version. When approved by MG and the Integration Directors, the document will be distributed to the board. Upon approval from the board, the document can be distributed to the host universities, other stakeholders, the IAB, and also published on the SciLifeLab web site.*
- *The board asked the Director to prepare two white papers (Industry collaboration and Clinical research) according to the recommendations from the IAB, and present them at the board meeting in May 2018. The ambition is to have the final versions ready during fall 2018.*

## 5. Research community programs

Olli Kallioniemi presented a suggestion on how to establish SciLifeLab Research Community Programs (RCPs). The intention is to bring together a critical mass of scientific expertise across several universities in Sweden on a particular theme or topic, to form new enabling links between infrastructures and researchers and to engage established and young PIs to combine forces and work together in multidisciplinary and national collaborations.

A number of issues regarding the RCPs were discussed, including purpose, scope, and practical details of the call and time-scale. It was suggested to indicate a preliminary idea on how large the RCPs are likely to be (5-30 PIs) and how many of them will be accepted after the first call (3-5). After the call for expression of interest has been completed, the MG and board will further discuss refining the concept based on the topics received and the types of consortia applying. A more realistic release date for the call is Dec 15, 2017, depending on the input still arising from the RCP concept and the call details.

### Decision:

- *The board approved the general concept of the RCPs and approved the launch of the RCP call after the revised document has been discussed by MG and with the Integration Directors. To promote national participation and involvement of infrastructures, the board also approved up to 1 mSEK of national infrastructure funding per eligible RCP per year. The final sum will be decided in a future board decision based on the suggestions received. Most*



*of the coordination funding for RCPs is still expected to come from the participating universities and SFO funding.*

## 6. **Plan for annual report 2017**

Mikaela Friedman presented the time plan and content plan for the annual report for 2017. Any major comments on the content needs to be brought up before mid-November, and the final version will be presented at the board meeting in February 2018. The KTH board make the final decision on the report on February 20, 2018.

The board was in favor of the plan with no major comments.

## 7. **Plan for annual report 2018**

Fredrik Sterky presented planned changes in the annual report from 2018 and in the future. The major difference is to focus on facilities when it comes to attraction of external funding and follow-up on user fees. The research grant to support the projects of the SciLifeLab Faculty will no longer be included.

The board was in favor of the plan and had no major comments.

## 8. **Life cycle of infrastructures**

Annika Jenmalm Jensen presented a proposal on how the renewal and life cycle of SciLifeLab infrastructures will be accomplished in practice. This includes interaction with universities in the launch of new national facilities, the role of MG in arranging the mid-term checkup of national infrastructures, calls for new technologies/pilots, investment in major instrument purchases as well as potential career support programs for staff scientists.

The board was in favor of the proposals, and asked for specific proposals to be presented, with budget allocations, at the February 2018 meeting.

## 9. **National sequencing projects**

Ulf Pettersson presented the work to evaluate applications in the National sequencing projects, in the programs "Swedish genomes" and "Swedish biodiversity". All applications had been evaluated by an international panel as well as a technical evaluation on feasibility by the NGI platform.

There were in total 14 applications suggested to be granted, 4 in Swedish genomes and 10 in biodiversity. The total funding is 32,61 mSEK (see Appendix B). A total of four applications were granted for bioinformatics support from WABI outside of this call.

### Decision:

*- The board approved the applications listed in Appendix B. The board asked the Director to perform a follow-up on the call as well as for earlier calls. As this is also needed for the KAW reporting of the grant, documents on achievements will also be brought for board discussion. This will form a basis for a discussion whether to approach the KAW regarding funding of a*

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*continuation of this program.*

## 10. Dates for fall 2018

The dates of the board meetings during 2018 are listed below.

The plan for major decisions for the board meetings will be as follows:

Q1: Approval of annual report

Q2: Strategy meeting, extended time and dinner (in Uppsala)

Q3: Preliminary budget.

Q4: Final budget.

## 11. Other issues

Olli Kallioniemi brought up the request to the universities to suggest Scientific Directors (SDs) for an approval by the SciLifeLab board.

### Decision:

*- The board approved that the current SDs in MG continue until new nominations from the host universities have been obtained and approved.*

Siv Andersson informed the board that six non-host universities (UmU, SLU, LiU, LU, GU and Chalmers) were asked to suggest two persons each for the National SciLifeLab Committee (NSC). The intention is that the board will decide members of the NSC committee at the meeting in February, 2018.

### Upcoming meetings:

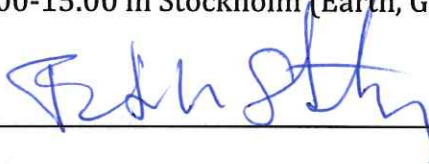
February 8, 2018 at 10.00-15.00 in Stockholm (Earth, Gamma 2, by the entrance)

May 22, 2018 at 10.00-? in Uppsala (Navet) with following dinner

October 2, 2018 at 10.00-15.00 in Stockholm (Earth, Gamma 2)

November 15, 2018 at 10.00-15.00 in Stockholm (Earth, Gamma 2)

Fredrik Sterky, secretary

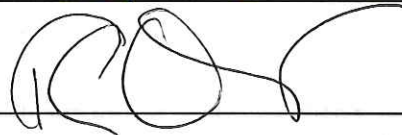


Minutes approved by:

Carl-Henrik Heldin



Fredrik Elinder



# SciLifeLab board meeting no 27

## Appendix A

### SciLifeLab budget 2018

No	kSEK	Natl./DDD	Natl. External	DDD External	Natl. Sthlm	Natl. Uppsala	DDD	Comments
<b>MANAGEMENT</b>								
1	Management	6 346	0	0	3 881	1 306	1 159	
2	Management administration	856	0	0	567	120	169	
<b>SUPPORT FUNCTIONS</b>								
3	Management of Operations Office	5 164	0	0	2 635	1 742	787	
4	Economy	853	0	0	408	323	122	
5	Communications	3 824	0	0	1 940	1 304	580	
6	Quality management (center planning, reporting, evaluation and system support)	826	0	0	270	476	81	
7	Campus Solna and Navet: support functions	80	0	0	0	80	0	
<b>CENTER INFRASTRUCTURE</b>								
8	Data center	7 500	0	0	0	7 500	0	no DDD coverage
9	Center premises	8 500	0	0	6 083	600	1 817	
10	Center IT infrastructure	2 844	0	0	2 190	0	654	
11	Campus Solna and Navet: investments	0	0	0	0	0	0	
12	Evaluation of infrastructure	406	0	0	313	0	93	
<b>COLLABORATIONS/EXTERNAL RELATIONS</b>								
13	Collaboration and utilization	1 783	0	0	1 373	0	410	
14	Networking activities (Infrastructure)	1 715	0	0	1 313	10	392	
<b>TRAINING AND COURSES</b>								
15	Training and courses	1 754	0	0	982	772	0	no DDD coverage
<b>RESEARCH COMMUNITY</b>								
16	SciLifeLab National Fellows	3 000	3 000	0	0	0	0	no DDD coverage
17	Strategic recruitments and SciLifeLab Fellows programs	0	0	0	0	0	0	
18	SciLifeLab Prize and Keystone	1 185	0	0	912	0	273	
19	Research conferences	1 726	0	0	1 267	80	379	
20	Research networks	1 433	0	0	925	232	276	
21	Funding to research groups	0	0	0	0	0	0	
22	Management research grants	7 100	0	0	5 000	2 100	0	No tab, no DDD coverage
<b>PLATFORMS</b>								
<i>National Platforms</i>								
23	Bioinformatics	18 100	2 000	0	7 900	8 200	0	
24	Genomics	48 500	0	0	47 500	1 000	0	Distribution not ready
25	Proteomics/Metabolomics	18 400	6 000	0	9 600	2 800	0	
26	Cellular & Molecular Imaging	19 320	4 000	0	13 451	1 869	0	
27	Single-cell Biology	15 200	2 000	0	10 000	3 200	0	
28	Chemical Biology & Genome Engineering	10 200	1 850	0	5 950	2 400	0	
29	Diagnostics Development	12 100	4 400	0	5 000	2 700	0	
30	Drug Discovery and Development	47 154	0	2 000	700	300	44 154	
<i>Temporary/Phasing out/Phasing over</i>								
31	Clinical Biomarkers (2018-01-01--2019-06-30)	400				400		
32	Tissue Profiling (2017-01-01--2018-06-30)	608				608		No tab
33	Fluorescence Tissue Profiling (2017-01-01--2018-06-30)	600			600			No tab
34	Fluorescence Correlation Spectroscopy (2017-01-01--2018-06-30)	640			640			No tab
35	Pilot facilities	0	0	0	0	0	0	
<b>Total costs</b>			<b>23 250</b>	<b>2 000</b>	<b>131 398</b>	<b>40 120</b>	<b>51 345</b>	
<b>Funding</b>			<b>23 250</b>	<b>2 000</b>	<b>149 598</b>	<b>40 120</b>	<b>51 345</b>	
<b>Funding available for new efforts*</b>		<b>18 199</b>	<b>0</b>	<b>0</b>	<b>18 199</b>	<b>0</b>	<b>0</b>	

Tilldelning Nat/INFRA 2018, prel regleringsbrev 212 968  
 Tilldelning LÅK 2018, prel regleringsbrev 53 345  
 SFO Sthlm 2018, prel regleringsbrev 109 758  
 SFO UU 2018, prel regleringsbrev 47 040

\*New efforts: Equipment call  
 Research community programs  
 Other national initiatives

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SciLifeLab funding for platform and facilities 2017-2018

## National

Platform 2017-2018	Facility	2017	2018	University
Bioinformatics	Big data bioinformatics, WABI, SU	2 000	2 000	SU
	Big data bioinformatics, WABI, UU	800	800	UU
	BILS, SU	1 700	1 700	SU
	BILS, UU	4 800	4 800	UU
	Compute and Storage, UPPNEX	2 800	2 800	UU
	BILS, SU (Chalmers support)	2 000	2 000	SU
	Systems Biology, SU	2 000	2 000	SU
	Big Data Bioinformatics (Systems Biology) (Chalmers)	2 000	2 000	Chalmers
Genomics	Genomics Stockholm	23 900	46 500	KTH
	Genomics Stockholm			KI
	Genomics Stockholm			SU
	Genomics Uppsala I (Medvet)	13 100		UU
	Genomics Uppsala II (IGP)	9 500		UU
	Ancient DNA	500	1 000	UU
	Ancient DNA	500	1 000	SU
Proteomics/Metabolomics	Autoimmunity profiling	2 100	2 400	KTH
	PLA Proteomics	2 400	2 800	UU
	Proteogenomics	1 680	2 400	KI
	Chemical Proteomics	1 120	1 600	KI
	Plasma profiling	3 200	3 200	KTH
	Swedish Metabolomics center (SLU)	3 000	3 000	SLU Umeå
	Swedish NMR Centre (Göteborg)	3 000	3 000	GU
Molecular and cellular imaging	Biomage informatics (BIIF)	1 325	1 869	UU
	Biomage informatics (BIIF)	425	631	KTH
	Advanced Light Microscopy	3 200	3 400	KTH
	High throughput microscopy	3 200	3 000	KTH
	Cryo-EM	4 000	4 500	SU
	Cryo-ET (Umeå)	4 000	4 000	UmU
	Protein Science Facility (PSF)	2 400	1 920	KI
Single cell	Eukaryotic Single Cell Genomics	5 000	6 000	KI
	Microbial Single Cell Genomics	2 000	2 200	UU
	Mass Cytometry	4 000	4 000	KI
	Mass Cytometry (Linköping)	2 000	2 000	LIU
	Single Cell Proteomics	1 000	1 000	UU
Chemical and genome biology	Chemical Biology Umeå	1 850	1 850	UmU
	Chemical Biology Stockholm	3 150	3 150	KI
	High throughput genome engineering	2 800	2 800	KI
	Gene targeting (Crisper-Cas9) in zebrafish	1 680	2 400	UU
Clinical genomics	Clinical genomics Stockholm	2 250	2 500	KI
	Clinical genomics Stockholm	2 250	2 500	KTH
	Clinical genomics Uppsala	2 700	2 700	UU
	Clinical genomics Göteborg	2 200	2 200	GU
	Clinical genomics Lund	2 200	2 200	LU
Drug Discovery and Development	ADME (UDOPP)	1 000	1 000	UU
Phase over	Karolinska High Throughput Center	800	0	KI
Phase out	Clinical Biomarkers	500	400	UU
Phase out	Tissue Profiling	1 216	608	UU
Phase out	Fluorescence Tissue Profiling	1 200	600	KI
Phase out	Fluorescence Correlation Spectroscopy	1 280	640	KTH
<b>Total (kSEK)</b>		<b>141 726</b>	<b>145 068</b>	

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## Appendix B

# SciLifeLab National Sequencing Project 2017

Prof. Ulf Pettersson, Uppsala University (Evaluation committee, Chair)

Prof. Ulf Gyllenstein (Project manager)

Ellenor Devine, PhD (Project coordinator)

## Introduction

With support from the Knut and Alice Wallenberg foundation SciLifeLab launched the National Sequencing Project initiative in 2014. The initiative enables sequence analysis of unique and well characterized sample collections with the aim to support and advance large-scale genomic research in Sweden through open calls. The National Sequencing Project 2017 is the third and last call within the initiative.

The open call for the National Sequencing Project 2017 were divided into two programs:

- **Swedish Genomes Program 2017**

*Human whole genome sequencing to identify genetic causes of disease.*

The rewarded projects within this call should have translational value and be of significance for improving healthcare.

- **Swedish Biodiversity Program 2017**

*Biodiversity sequencing to reveal genetic variation in nature.*

The rewarded projects within this call should give novel biological insights and societal benefit for the environment. All types of biodiversity, of viruses, bacteria, archaea and eukaryotes are included within the call.

As a requirement of the National Sequencing Project initiative 2017, all samples will have to be sequenced at the National Genomics Infrastructure (NGI) hosted at SciLifeLab. All relevant technologies available within NGI are applicable and the reagent and running costs for the granted projects will be covered by the initiative. Opportunities for Microbial Single Cell Genomics were also available and included in the call through the Microbial Single Cell Genomics facility. The National Bioinformatics Infrastructure Sweden (NBIS) and the Swedish National Infrastructure for Computing were also engaged to support the projects and the community to take advantage of the new opportunities. Additionally, all samples within each program must be received within 6 months after the project is approved and all projects must accept the SciLifeLab Data Access Policy.

The applications have been evaluated based on Scientific Impact, Societal Benefit, and Technical Feasibility. All applications are peer-reviewed, by both external evaluators and an Evaluation committee, to carry out as impartial assessments as possible. The evaluation was based on the Swedish Research Council policy.

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SciLifeLab National Sequencing Project initiative 2017 in numbers

**Application deadline:** June 15, 2017.

**Total number of applicants**

Swedish Genomes Program	21 (11 females/10 males)
Swedish Biodiversity Program	27 (10 females/17males)
Total	48

**Peer-review**

Total number of external reviewers: 13 (7 Genomes Program/ 6 Biodiversity Program)

Evaluation committee, Swedish Genomes Program

Prof. Aarno Palotie, University of Helsinki

Prof. Åke Lernmark, Lunds Universitet

Prof. Ulf Pettersson, Uppsala University (Chair)

Evaluation committee, Swedish Biodiversity Program

Mike Zody, Research director, New York Genome Center

Prof. Mari Källersjö, Göteborgs botaniska trädgård/Göteborgs Universitet

Prof. Ulf Pettersson, Uppsala University (Chair)

**Technical review**

- National Genomic Infrastructure (NGI)
- Microbial Single Cell facility
- SNIC/Uppmax; evaluated compute and storage
- National Bioinformatics Infrastructure Sweden (NBIS)

**Number of proposed grantees and amount**

Swedish Genomes Program

4 applications (19%) to a total of 25 460 000.00 kr

Swedish Biodiversity program

10 applications (37%) to a total of 7 150 000.00 kr

Total number of applications rewarded and amount: 14 applications to a total of 32 610 000.00 kr

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# Swedish Genomes Program

Proposed grantees, Scilifelab Sequencing Projects 2017

Table of proposed grantees

ID	Owner (PI)	Title	Gender	Affiliation	Rewarded budget (up to)	Conditions and adjustments
NP00043	Rosenquist Brandell, Richard	Implementing whole-genome sequencing of acute leukemias in a diagnostic setting	M	KI	9 000 000,00 kr	Total cost lowered after re-calculations of the budget by Scilifelab.
NP00047	Ling, Charlotte	Understanding epigenetics of complex diseases by whole-genome bisulfite sequencing	F	LU	2 400 000,00 kr	Partial funding. Scilifelab will fund WGBS for the case-control cohort of type 2 diabetes (T2D) disorder. (Sample number: T2D samples n=50, controls n=200).
NP00071	Forsberg Nilsson, Karin	Sequencing of cancer stem cell lines and tumors from glioblastoma patients, in search of new candidate variants for tumor development and progression	F	UU	4 060 000,00 kr	Partial funding. Scilifelab will fund WGS up to 30X coverage for sequencing of samples from cell lines, instead of the proposed 60X coverage.
NP00085	Wadelius, Mia	Whole genome sequencing to identify genetic causes of adverse drug reactions (Swedegene-WGS)	F	UU	10 000 000,00 kr	Partial funding. Scilifelab will fund WGS sequencing for the following ADR diagnosis: Angioedema, Liver toxicity, and ALT in Rheumatoid arthritis (sample number, n= 962).

Sum of available finance

26 000 000,00 kr

Sum of rewarded applications

25 460 000,00 kr

# Swedish Biodiversity Program

Proposed grantees, Scilifelab Sequencing Projects 2017

Table of proposed grantees

ID	Owner (PI)	Title	Gender	Status	Affiliation	Rewarded budget (up to)	Conditions and adjustments
NP00020	Bengtsson-Palme, Johan	<i>The Genetic Diversity Underpinning Invasion Success in Bacterial Communities</i>	M	JUNIOR	GU	850 000.00 kr	Costs for reagents for InSeq and metagenomes are not covered by the call and therefor excluded.
NP00030	Karlsson Lindsjö, Oskar	<i>A dive into the microbial diversity of coral reefs</i>	M	JUNIOR	SLU	500 000.00 kr	A confirmation from the prefect is needed that guarantees salary support for Oscar Karlsson Lindsjö for the whole project period.
NP00039	Guschanski, Katerina	<i>Learning from the past: dental calculus provides temporal perspective on microbiome, diet, and health of extant and extinct mammals</i>	F	JUNIOR	UU	300 000.00 kr	Partial funding. Scilifelab will fund a pilot project only.
NP00046	Webster, Matthew	<i>Genomic analysis of adaptation to climate change in two bumblebee species</i>	M	SENIOR	UU	750 000.00 kr	

Scilifelab Sequencing Projects 2017

NP00048	Stenberg, Per	Swedish biodiversity in time and space	M	SENIOR	UMU	1 500 000.00 kr	Total number of samples in the proposal flexible and can be lowered. Budget adjusted accordingly to lower amount by Scilifelab.
NP00052	Székely, Anna	Inland water virus scope - enlarging our knowledge of the diversity of the tiny and understudied regulators of aquatic ecosystems	F	JUNIOR	UU	550 000.00 kr	Costs for bioinformatics analysis assistance from NBIS are not covered by the call and therefor excluded.
NP00058	Parducci, Laura	Shotgun sequencing pollen from lake sediments to investigate past plant biodiversity	F	SENIOR	UU	400 000.00 kr	Costs for bioinformatics analysis assistance from NBIS are not covered by the call and therefor excluded. Total cost lowered after re-calculations of the budget by Scilifelab.
NP00064	Ettema, Thijs	Unraveling the archaeal origin of complex cells by genomics-driven exploration of microbial dark matter	M	SENIOR	UU	800 000.00 kr	
NP00078	Peura, Sari	Getting a grip on the microbiota controlling greenhouse gas emissions from freshwaters	F	JUNIOR	SLU	1 000 000.00 kr	
NP00081	Street, Nathaniel	Diversity impacts on the belowground metacommunity associated with contrasting nitrogen fertilization sources	M	SENIOR	UMU	500 000.00 kr	
Sum of available finance						7 000 000.00 kr	
Sum of rewarded applications						7 150 000.00 kr	

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