

Activity plan
Environment and Sustainable Development

Department of Oncology-Pathology
Karolinska Institutet

2023-2024

Part I. Research activities

Part II. Information and Education

Part III. Organization and management

General Responsible for Sustainability work: Chair of the Department

Responsible for the plan and activities: Delegate for Sustainable development

Part I. Research activities

Goal 1: reduce the environmental impact of our research activities

Goal 2: minimize health and environmental risks

Milestones:

1. Reduce energy and water use
2. Reduce the climate impact of business travel
3. Reduce waste and increase waste sorting
4. Increase lab safety
5. Reducing Chemicals and Chemical Waste
6. Influence through Purchasing and Procurement

Table 1

Target	Equipment/problem	Activity/Intervention	Status
Reducing energy use I	1)Ventilated cabinets/ sterile benches run at 1/2 strength 24/7. Waste of energy	1) Turn off for the night. Let them run 15 minutes before work begins, recommended by NinoLab. 2)Restrict usage of UV lights for ≤ 30 minutes: saves energy and keeps people safe from exposure to UV light 3)Substitute light tubes in the BSC to LED lamps	Systematic work Put up notes Ask group leaders to monitor Many groups turn off now
	2) Chemical cabinets are often left on	Inform to bring down sliding shield after work is done. Employees should be reminded.	Replaced in 11 BSC at BioClinicum There are notes on each cabinet Ask group leaders/managers to inform and remind
	3) Snow in -80 and -20 freezers, a lot of old samples are unnecessary stored	1)De-frosting and organizing -80 freezers, regularly scrape off snow 2)De-frosting -20 freezers Reminding to de-frost and to discard and organize	Systematic work in reminding Ask group leaders to inform and remind Groups are better to follow this up
	4)Lights and equipment are left on throughout the night and holidays	Turn off lights, turn off computers and appliances Remind, put up signs, timers, find equipment for timers to be installed	Timers are bought, install more. Put up signs. Ask group leaders to inform and remind.

	<p>5) Equipment that is not used. Old equipment that is not serviced</p> <p>6) Sell/give away equipment</p> <p>7) Lab materials that are not used</p>	<p>Share equipment and centrifuges. Maintain instrument park and core facilities. Service centrifuges, sterile benches once a year. Placement in a common place</p> <p>FACS LSR-II Ultracentrifuge</p> <p>Change & donate week at Onkpat</p>	<p>Systematic work. Works well!</p> <p>Encourage to share equipment.</p> <p>Gave back to BD Discarded</p> <p>Arranged 2 times per year, Katja/Paula</p>
Reducing Energy Use II	Convert -80 freezers to -70	Participate in discussion with other departments, Freezer Challenge	Talk from Pernilla Sörme pernilla.sorme@mygreenlab.org at MyGreenLab on KI sustainability day. To be done
Measuring energy use	Unknown how much energy we use. Crucial for energy saving	<p>Measuring energy use in our premises twice a year; Introduce a competition between cores</p> <p>Purchase measuring devices for each -80 freezer</p>	<p>We are in Contact with Oskar Kuoppala at COOR at BioClinicum. We got statistics for each core (J5:30, J6:30, J6:20) and will receive every quarter.</p> <p>To be done</p>
Reduce CO2 emissions from business travel and from foreign opponents	<p>Still not choosing train but plane; Foreign opponents via zoom – has to be a balance</p> <p>Using digital meeting</p>	<p>KI produces statistics that we should present annually; Publish the guide (traveling eco-smart) on the website</p> <p>The guide for sustainable meetings; each conference has a digital option</p>	<p>Statistics from KI is retrieved and information is sent to all, and is on our home page.</p> <p>Becomes a routine now</p>
Ensure Lab Safety	According to WEG plan	Our safety representative, Paula M., also participates in environmental work	Systematically done jointly with WEG
Reduce Chemicals	Each group is purchasing chemicals	Reduce the purchase of chemicals through sharing. Chemical representative Anna M checks in KLARA and sends a request to share. Coordinate of purchases between groups	<p>The opportunity is Advertised.</p> <p>Ask group leaders to inform and get in contact with each other</p>

	Produce charts for statistics of chemical purchases for statistics each year	that share labs and chemical cabinets! Anna M. to-do every year	Anna M. presented at WEG. Inform all on the statistics
Reduce hazardous chemicals and chemical waste	Still using many of hazardous chemicals (Trypan Blue)	Phasing out hazardous chemicals; Inventory; Inform on Green Chemistry; Each group has a list; Write a short guide how to find more environmentally friendly substitutions	Done according to KI inventory Katja needs to inform Substituted Triton-X100 by Tween20 at HistoCore – Anna To be done
Reduce waste	Yellow boxes are packed with paper, gloves mm; A better information/film about sorting for recycling	Dialogue with COOR and FoUI to improve; See also <u>below</u> in "Information": Make another informative film together with Paula M. Involve students, colleagues	QR code and add on website-to make, Katja, Paula
Reduce plastic waste	<u>Suppliers:</u> Solving problems with cooling bags and Styrofoam boxes <u>Disposable plastic</u> plastic recycling has to be increased Training in environmental thinking is required	Make sure they are not burned but recycled Dialogue with Miljörådet and the procurement unit Sorting plastics that were not in contact with biological material. Recycle empty reagent plastic bottles. This will also Reduce biological waste!	Get help from KI. Promote at Miljörådet Include in the new Action plan for KI/ Katja Inform and remind Discuss: what is contamination? PBS bottles, media w/o antibiotics – clean enough to discard in the sink. Ask group leaders to discuss
Reduce biological waste	Sort better and don't throw everything in yellow boxes.	Inform what to throw in yellow boxes; make a video; train new employees in lab safety; This will reduce the costs for society!	Systematic work, Katja, WEG Ask group leaders to discuss
Reduce paper usage	Need to reduce paper waste and clutter in the laboratory	Setting up printers on double sided, black and white mode as default settings.	Put up new notices Contact KI-ITA for printer set up/Katja

<p>Involve procurement</p>	<p>Collaborate with procurement unit</p> <p>Direct procurement: A quick guide on procurement from an environmental perspective.</p> <p>Introduce AKT requirements in procurement Act - About (mygreenlab.org)</p>	<p>Influence KI centrally to include requirements for packaging recycling;</p> <p>Coordinate with Lilia Dianova/Environmental coordinator at KI</p> <p>Coordinate with Heike Siegmund, chemical coordinator at KI</p>	<p>Long-term goal, discussions in Miljörådet. Katja</p> <p>Ongoing Katja</p> <p>Ongoing discussion Katja</p>
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Part II. Information and Education

Goal: to acquire "competence" at all levels of sustainable development in close relation to lab safety

Milestones:

1. Education
2. Information
3. Acquire systematically statistics and measurements

Table 2

Target	Activity/Intervention	Status
Inform about KIs and OnkPat's environment and sustainability work	Katja P. T. gives regular updates; participates in introduction of new employees; Bulletin board with news; Monthly newsletters; Website with Environment and Sustainability	Systematic work in coordination with Paula M. and Anna M. Ask group leaders/Head/Admin to inform
Measuring energy usage	Contact COOR, get data out and make charts on energy use each year	Done!
Ensure training on waste sorting and motivate Inform separately regarding food waste	Inform better on mixed paper and cardboard; clarify about brown paper Make a QR code film on sorting food waste (floor 2) responsible at NKS ewa.frank@regionstockholm.se	To be done in educating/reminding people on site Katja, Paula, involve people to be done
Work with information, goals; train the new mind set	Monthly newsletters to everyone on OnkPat with a Theme	Every month. Involve employees and their creative thinking
Inform about KI activities	Information on bulletin board, by e-mail, on screen in the lunch room	Systematic work, Katja KI sustainability day, Students for Sustainability

Part III. Organization and management

Objective: Enable systematic work at OnkPat with environment and sustainability issues.

Table 3.

Target	Activity/Intervention	Status
Planning activity	Create Activity Plan and upload to the homepage. The plan as part of AMG work; Present to AdMin/Lars H.	Yearly discussed and adjusted with AC and Head of department Updated at the home page
Dissemination of information: "Administration informs"	Inform, describe goals and actions.	This information comes from the management every two months
Report at "Breakfast meetings"	Include short reports 1-2 times per year Invite a new speaker	Peter Stenvinkel 18/10-23 on Planetary health; Liselotte Schäfer Elinder Karolinska Institutet (ki.se) is invited for 13 november 2024
Acquire knowledge (from KI centrally, other delegates, at BC, other universities and countries)	Participate in meetings and conferences; meeting with KI-representatives; KI sustainability day; seminars from "MyGreenLab", Stockholm TRIO	Katja is involved at KI Miljörådet. Involve people, group leaders. Find a student representative
Participation at KI sustainability	Katja Joined "Miljörådet" Meetings, organization of sustainability day, contact with other miljöombud, and miljösamordnare	Systematic work. Katja, Paula, Anna participate at KI sustainability day Get in close contact with BioClinicum miljöombud, katja