

NEOLAiA Schools of medicine and Health network

University of Tours, faculty of medicine

Minutes, September 26 and 27, 2024

This NEOLAIa Health and Schools of Medicine network meeting of September 26-27 at the faculty of Tours was supported by the the programme Loire Val Health of the university of Tours. They were organised by Matthias Buchler and Kay Mc Karthy with the support of Benjamin Depauw and Clémentine Périnaud of the NEOLAIa office of the university of Tours and the faculty of medicine of the university of Tours. This document was written by C. Périnaud, research project manager, NEOLAIa office, university of Tours.

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1 – Attendees

Study and research administration:

Ida Andersson-Norrie (ORU), International Strategy Officer

Mélanie Brand (UNIBI), Erasmus coordinator and research assistant, OWL Medical School

Diederick Brummer (ORU), Head of Administration, School of Health Sciences

Malin Bertilsson (ORU), Study and Research Administrator, School of Medical Sciences

Benjamin Depauw (UT), NEOLAiA project manager

Claire Durand (UT), NEOLAiA project manager in charge of Erasmus mobilities and BIPs

Hanan El khadir (UT), pedagogical advisor

Anna-Susan Franke (UNIBI), research project manager, OWL Medical School

Dorothee Leroux (UT), Loire Val Health project manager

Louis Lantier (UT), Loire Val Health research administrator, in charge of research infrastructures

Clémentine Périnaud (UT), NEOLAiA research project manager

Teacher-researchers:

Alexandra Audemard-Verger (UT), Associate Professor of Internal Medicine and Clinical Immunology, hospital practitioner, Research Centre for Respiratory Diseases (CEPR)

Anja Bittner (UNIBI), Dr. Med., dean of Studies and Teaching at the OWL Medical School

Hélène Blasco (UT), professor in biochemistry and molecular biology and hospital practitioner, research assessor at the faculty of medicine, IbraiN research unit (Imaging, Brain and Neuropsychiatry)

Christian Brandt (UNIBI), Head of the department of General Epileptology, OWL Medical School

Matthias Buchler (UT), professor and hospital practitioner, head of the nephrology department and international coordinator for the faculty of medicine

Mihai Covașă (USV), professor of Gastrointestinal Physiology&Nutrition, dean of the College of medicine and biological sciences

David Cruz Diaz (UJA), Professor in Physiotherapy, physical activity, physiotherapy and health research Group, Faculty of Health sciences

Christoforos D Giannaki (UNIC), Associate professor in Exercise and Health, School of Life and Health Science, Director of the Research Centre for Exercise and Nutrition

Hans Hjelmqvist (ORU), professor of anaesthesia and intensive care, belongs to several research groups (research-based education in health professions - Perioperative care and educational processes), School of Medical Sciences

Elisabeth Hultgren Hörnquist (ORU), professor in immunology and Department Internationalization coordinator, Adaptive immunity in microscopic colitis and colon cancer (Life Science Centre research group), School of Medical Sciences

Kay Mc Karthy (UT), Department of English, faculty of medicine

Alexandru Nemtoi (SVK), Associate Professor and practitioner, Oral and Maxillofacial Surgery, Faculty of medicine and biological sciences

Ana Rosa Rama Ballesteros (UJA), professor in human Anatomy and embryology, specialised in genetic therapy and the development of gene therapy systems for cancer treatment, Faculty of Health sciences

Ignacio Rangel (ORU), associate professor at the Nutrition Gut Brain Interactions Research Centre, works on gastrointestinal (GI) tract and its complex ecological environments, School of Medical Sciences

Philippe Roingeard (UT), professor in molecular biology and hospital practitioner, virology researcher, MAVIVHe Research unit (Morphogenesis and Antigenicity of HIV, Hepatitis and Emerging Viruses)

Jozef Škarda (OSU), vice dean for strategy and development at the faculty of medicine, head of the research group Prevention, Early Diagnosis and Targeted Therapy of Solid Tumors and director of the Institute of Molecular and Clinical Pathology and Medical Genetics

2 – Final programme

Day 1 September 26, 2024 Meeting highlight: research activities	
Time	Topic
09:00 – 09:45 Room: Salle des Actes	Welcome remarks <u>Denis Angoulvant</u> , dean of the faculty of medicine of the university of Tours <u>Catherine Beaumont</u> , vice president of the university of Tours for research (life and technical sciences): the research in Health at the university of Tours <i>Followed by a reminder of the objectives and a short round table.</i>
09:45 – 10:15 Salle des Actes	Mapping research in the NEOLAIa alliance (NEOLAIa WP5 task) <u>Ignacio Rangel</u> (ORU), NEOLAIa WP5 coleader and medical researcher
10:15 – 10:30	<i>Coffee break</i>
10:30 – 11:30 Rooms: 2.3/2.6	Discussion on the research best practices <u>Diederik Brummer</u> (ORU), The research at the Health School of ORU <u>Ignacio Rangel</u> (ORU), The research at the School of Medical Sciences of ORU <u>David Cruz Diaz</u> (UJA), The research at the Faculty of Health Sciences of UJA <u>Mihai Covașă</u> (USV), a research in physiology and Nutrition <u>Dimitri Giannaki</u> (UNIC), The Research Centre for Exercise and Nutrition of UNIC
11:30 – 12:00 Rooms: 2.3/2.6	The Loire Val Health programme: a major research project of the university of Tours <u>Philippe Roingeard</u> , professor in molecular biology, LVH leader <u>Dorothee Leroux</u> , LVH project manager
12:00 – 13:30: <i>Lunch break</i>	
13:30 – 15:30 Rooms: 2.3/2.6	Discussion on research synergies in subgroups First part: NEOLAIa health research infrastructures: what synergies? Second part: Building a NEOLAIa remote seminar agenda Synthesis by <u>Louis Lantier</u> , researcher in immunology, in charge of research infrastructures for the Loire Val Health programme.
15:30 – 17:30	Walking tour in the university & hospital labs Core facility for Biological Systems Analyses: the electronic microscopy department, the chemical Analysis and metabolomics department, the genomics department, Cytometry and Single cell Immunobiology department, the functional metabolism departement
19:00 – 20:30	City hall cocktail – Place Jean Jaurès, Tours
20:45 -	Diner in the city center – Restaurant „Bouillon Le Bon Temps“, 5 avenue de Grammont

Day 2 September 27, 2024 Meeting highlight: pedagogical activities	
Time	Topic
09:00 – 10:30 Room: Salle des Actes	How to develop student mobility With presentation of existing and prepared NEOLAiA Erasmus agreements and collective discussion, including: <u>Elisabeth Hultgren-Hornquist</u> (ORU), an overview of NEOLAiA student mobilities at the School of medical sciences of the university of Örebro <u>Melanie Brand and al.</u> (UNIBI), NEOLAiA student mobilities at the medical school OWL <u>Jozef Škarda</u> (OSU), student exchanges at the faculty of medicine of the university of Ostrava <u>Diederik Brummer</u> (ORU), internationalisation of education at the Health School of ORU <u>David Cruz Diaz</u> (UJA), Erasmus agreements in health and medicine at UJA
10:30 – 10:45	<i>Coffee break</i>
10:45 – 12:00 Rooms: 2.3/2.6	Discussion on the pedagogical best practices <u>Christian Brandt</u> (UNIBI), "FRimeL - Enabling inclusive teaching in Medicine" <u>Jean-Philippe Cottier</u> (UT), "mindfulness meditation: an educational experiment"
12:00 – 13:30	<i>Lunch break</i>
13:30 – 15:00 Rooms: 2.3/2.6	BIP & traineeship projects in medical and paramedical studies <u>Claire Durand</u> (UT), "What is a BIP?" <u>Ida Andersson-Norrie</u> (ORU), "Experiences of BIPs" Workshop in subgroups to design NEOLAiA BIP(s) in Health & Medicine
15:00 - 16:00	Walking tour in the Simulation Centre and the Fac Lab of the university
16:00 - 16:15	Closing remarks
17:00 – 18:30	Walking tour in the city

3 – Research in Health and medicine in the NEOLAIa alliance: an overview

Mapping research in the NEOLAIa Alliance: the NEOLAIa WP5.2. task

Ignacio Rangel (ORU), NEOLAIa WP5 coleader and medical researcher

Ignacio Rangel presented the NEOLAIa Work Package 5 Increasing Regional Research Impact and the mapping of research infrastructures and research synergies, a first version of it is to be issued by december 2024 and updated each year. Surveys to the WP5 delegates representing all the partners are used to gather the information. With a more bottom-up approach, a researcher survey is also developed with the university of Salerno (NEOLAIa WP8 Open science) based on free keywords and the European Research Councils pannels. The mapping will create a dashboard to search for specific competencies and produce an open dataset of competences in the NEOLAIa alliance (in synergy with T8.3).

The European Commission defines research infrastructures as facilities that provide resources and services for research communities to conduct research and foster innovation. They can be used beyond research e.g. for education or public services and they may be single-sited, distributed, or virtual. Based on this definition, research infrastructure include major scientific equipment or sets of instruments, collections, archives or scientific data, computing systems and communication networks, any other research and innovation infrastructure of a unique nature which is open to external users, any unique research methods. The WP5 infrastructure map will detail for each infrastructure its useage and most important specifications, and give a contact person. This will create a strong basis to identify clusters of researchers and to apply external research funds.

An overview of Research at the School of Health Sciences of the university of Örebro

Diederick Brummer (ORU), Head of Administration, School of Health Sciences

The School of Health Sciences of the university of Örebro hosts **2400 students**, 17 degree programmes and 65 doctoral students, 200 faculty and staff and 8 professorships. It educates future audiologists, biomedical scientists, occupational therapists, nurses, physical education teachers, radiographers, nurse specialists, sport coaches, and sport managers. If historically the school is focused on educational activities, its research activity is growing as well as the importance of external fundings. Faculty researchers are organized into interdisciplinary research groups and collaborate with the health care, social services, and education sectors in Sweden and internationally.

Thus, the research activities in **biomedicine, disability research, medicine, nurse sciences, occupational therapy, public health sciences and sport sciences** support one of the three strong profiles of the university of Örebro: Food and Health (the other two are: IA and robotics – pollutants and society). The School also hosts **three major research study programs, in disability sciences** (9 doctoral students), **sport sciences** (7 doctoral students) **and medical sciences with a specialization in healthcare sciences** (57 doctoral students).

The School of Health Sciences acquires a prominent role in the region, in Sweden and in the international scientific community, with a substantial increase of external research funding and outreach of research results especially in nursing sciences, and internationalisation.

An overview of Research at the School of Medical Sciences, Campus USÖ (ORU)

Ignacio Rangel (ORU), NEOLAiA WP5 coleader and medical researcher

Ignacio Rangel starts its presentation by reminding that the two schools are *sisters* and of course collaborate a lot. The School of Medical Sciences hosts lots of research topics but three major research disciplines: **medecine, biomedecine¹ and surgical sciences**, with a coordinator for each of those areas educational wise, as Hans Hjelmqvist (ORU) who is the head of surgical sciences area. Very recently, there was a change in the organisation of the faculty from research centres and environments to research groups covering all the academic level (from professors to PhDs). The researchers try to be as active as possible in their different research activities:

- **Seminars** - with the **Science Forum seminar of the School of Medical Science** that gives opportunity to invite international partners or **the Research Days** organised with the School of Health sciences, or seminars with the Region. Most seminars are open to the general public, and accessible with zoom.
- **Ethics and ethical environments in relation to medicine** – This is another important and transversal aspect of a research that is mostly patient based but implicating also healthy individuals.
- **Doctoral education** – with around 250 PhD students, and around 200 located in the Region, which means at the University Hospital. Therefore, their salaries are coming from the Region. Medical doctors following a four years doctoral programme have to dedicate 50% of their work to research, meaning that theoretically their doctoral education takes 8 years when the others directly employed by the university of Örebro and financed with external funds will achieve their doctoral studies in four years.

Ignacio Rangel insists on the **tightness of the contact with the Region**, with also research facilities placed in the University Hospital and joint infrastructures. At the Medical School, the Research Advisory Board oversees research activities and is responsible for promoting the high quality research conducted at the Medical School, with representatives of researchers at all academic level but also of the Region and laboratories.

In total, the Medical School hosts more than **50 research groups, conducting research going from molecular-level studies to epidemiology** looking at different diseases but also life span cohorts with **important related databases to study early life and ageing**, and translational research. The research is done by faculty members, postdoctoral researchers and doctoral students across various specialities, with different key aspects: Patient-oriented studies – Prevention - Focus on common diseases - Range from genetic / molecular aspects to pathophysiology, symptoms and treatment - Collaboration between active research teams - Training environment for future researchers.

¹ Major areas in biomedecine at the school of Medical Sciences are: cardiovascular diseases, biomarkers, gut microbiota, inflammation, infection, susceptibility, antimicrobial resistance.

An overview of Health and Medicine Research at the university of Suceava

Mihai Covașă (USV), professor of Gastrointestinal Physiology&Nutrition, dean of the College of medicine and biological sciences

The faculty of Medicine and Biological Sciences is only 12 years old, a lot younger than the Ștefan cel Mare University of Suceava (SVK) that hosts 405 full time teaching staff and 350 part time adjunct teaching, and around 10.000+ students and around 1000 students at the faculty of Medicine and Biological Sciences. In 2023, it ranked 4th in Romania in Times Higher Education World University Ranking and 5th in Romania in QS World University Ranking, with the main contribution coming from research. The faculty of Medicine and Biological Sciences has developed seven bachelor programmes in medicine, general nursing, balneophysiokinetotherapy, nutrition, dental technology, biochemistry and biology, and also a **master programme in nutrition and medical recovery**.

The university is comprehensive, with 11 colleges, offering access to a wide range of laboratories, intertwining medical research with engineering, chemistry and social sciences. The **College of Medicine and Biological Sciences** has laboratories for human anatomy and physiology, molecular biology, metagenomics, biochemistry, bioinformatics... A large center for material characterization and testing as well as cloud computing facility offers access to numerous analytical methods. The Faculty of Medicine and Biological Sciences collaborates with the **Suceava Clinical County Emergency Hospital** that also hosts laboratories including pathological anatomy, nuclear medicine, radiology, interventional radiology and molecular biology.

The **main research clusters of the faculty** are in Nutrition and metabolic diseases, Molecular biology and metagenomics, Biochemistry and biotechnologies, Rehab medicine, Clinical research, Bioinformatics and computational biology.

Mihai Covașă also presented in more details **four main research areas** of the faculty:

- **the study of the role of microbiota in metabolic diseases**, particularly obesity and diabetes.
- **the study of risk factors in long Covid 19**.
- **the monitoring of infectious agents in the environment**.
- **research on health education** whose main objective is to increase public and medical staff awareness of risk factors linked to overweight, obesity and diabetes through on-site screening, nutrition counselling and education and personalized health feedback.

He finally presents important **recent research findings and publications in biomedicine developed at the faculty** (about gut microbiota, bone tissue regeneration on animal models, biological characterisation of peptides in neurological disorders, biochemical and genetic characterisation of plants and animal species of food interest, forestry, modeling of proteins...).

The Research Centre for Exercise and Nutrition of the University of Nicosia

Christoforos D Giannaki (UNIC), Associate professor/Exercise physiologist, Department of Life Sciences, School of Life and Health Science, Director of the Research Centre for Exercise and Nutrition

The Research Centre for Exercise and Nutrition (RECEN) is a **multidisciplinary research centre** consisting of scientists from different life and health sciences disciplines. RECEN research aims to conduct high-quality and innovative research activities focusing on the role of **exercise and nutrition** on health and quality of life-related parameters in various population groups, including healthy people of all ages and patients with chronic diseases.

Christoforos D Giannaki illustrated the research interests of the researchers of the centre by presenting different scientific publications:

- **Exercise, Fitness and Health** - researchers are specialised in the **study of High Intensity exercise** and effects on physiologic, metabolic and quality of life parameters. Studies are using the **well equipped UFIT gym facilities** at UNIC and tests are run in the **Human Performance Lab**.
- **The role of exercise and Nutrition in the prevention of chronic diseases** – the majority of the studies are multidisciplinary involving dietetician, exercise scientists, medical doctors, physiotherapists, human biologists in order to have more quality assessment and explanation of the mechanisms. The university of Nicosia is one of the two host institutes for the National Centre for Exercise in Medicine in Cyprus, to which Christoforos D Giannaki is president.
- **Exercise, Nutrition and Sleep** – This topic is one of the most developed with a strong specialisation of the researchers (such as sleep medicine doctors, exercise physiologists and so on), systematic reviews comparative studies with patients having sleep disorders, performance of some Exercise and Nutrition interventions to observe the combined effects of life style on sleep with dedicated equipments.
- **Sports nutrition** in relation to the study of biologic and physiologic parameters
- **Healthy ageing** – with various european (H2020 and COST action programmes) and local funded projects to study the impact of exercise and nutrition on ageing parameters.

The university of UNIC hosts modern facilities, equipments and portable devices in its **Human Performance Lab** to support the RECEN researchers and to assess physical and fitness parameters or run some exercise interventions including cardiorespiratory fitness.

An overview of Health and Medicine Research at the university of Jaén

David Cruz Diaz (UJA), Professor in physiotherapy, Faculty of Health sciences

The university started **medicine research and teaching activities only three years ago** so the research groups involved are still quite limited. On the other side, UJA has a **long tradition in teaching nursing and physiotherapy** with research lines in the two fields:

- **Medicine** – research in cancer and microbiota
- **Physiotherapy** – UJA is very aligned with the Research Centre for Exercise and Nutrition Sciences of the university of Nicosia that was also presented and share same research topics.

David Cruz Diaz is involved in the sport performance group that works with high density interval for the prevention of risk of fall of the elderly, with cardiometabolic or high intensity training. The research group also focuses on the effects of different therapy techniques. The research is multidisciplinary with **collaborations with medicine, nursing and social sciences** in order for a broader view of social issue.

The Loire Val Health Programme, an initiative to transform research and training, university of Tours

Philippe Roingeard (UT), scientific coordinator and Dorothée Leroux (UT), Project Manager

Loire Val Health is an interdisciplinary Research and Teaching Alliance in Human and Animal Health (11,8 M euros, 2024-2031 – National Call “Excellence in all its form). The project of heigh years is carried out by the university of Tours and associates in the Loire Valley the university of Orléans with the two university hospitals (CHRU) of Tours and Orléans, the National Scientific Research Council (CNRS), the french National Institute for Medical Research (INSERM) and the National Research Institute for Agriculture, Food and the Environnement (INRAE).

The heart of the project is to create **an alliance of infrastructures, researchers and ressources for trainings**. The programme aims to sustain a **smart specialization strategy in three excellence research axes** of the university of Tours and its partners: **Biopharmaceuticals – Mental Health and neurosciences – Infectious diseases & One Health**.

The project is divided in three work packages:

- **Creation of the alliance** - with the promotion of a common culture through the organisation of **multidisciplinary seminars**, the **sharing of infrastructures** (with access to scientific plateforms for every partners) and **internationalisation especially with NEOLAiA universities**.
- **Transformation of research** – wit the strenghtening of an interdisciplinary research through cross fertilisation between sites, research axes and disciplines. Another objective is to foster interdisciplinary and participatory research through the support for an interdisciplinary science shop, a care and empowerment forum and the development of public book editing.
- **Optimising the regional health training** - The programme will especially finance PhD scholarships, support the creation of accredited European Master’s degree, using the model of IDOH Erasmus mundus master in infectious diseases (UT), and international mobility.

First PhD scholarships are ongoing and soon first events and mobilities.

Question by MC - What is the overlap between NEOLAiA and the programme ? Philippe Roingeard answers by explaining how competitive was the call for the programme from the French gouvernement that aimed to strenghten axis of excellence of some french universities. The UT was not successful in the first call, with a programme very focused on research but the international jury judged that it was not enough transforming. The second call added the teaching programme with the Graduate Schools and international masters in the three domains of excellence. At the moment, the NEOLAiA alliance was created and we had the opportunity to strenghten the international dimension of the programme.

Question by IR - The NEOLAiA alliance only have support until 2027 so it appears really important to get the related clusters to remain involved in upcoming PhD and master programmes, also in relation to WP5 tasks. Do you have any idea of how to proceed with the PHD recruitment? It would be six to seven PhD recruitments each year. The idea is to create a lasting environment that would continue after the end of the LVH programme.

4 – Building research synergies: towards a monthly NEOLAIa webinar

The group discussed topics and formats for a **NEOLAIa health and medicine seminar** (Annexe 1) and proposed to have a **monthly remote sessions of two hours each, dedicated to the presentation of infrastructures**. Ignacio Rangel reminded the **UE definition of scientific infrastructures**. Research Infrastructures are major scientific equipment or sets of instruments, collections, archives or scientific data, computing systems and communication networks, or research method that are unique at a regional or national level. The sessions would target **all interested researchers, including young researchers** of NEOLAIa universities. Medical students would be a second step but invited to discover the techniques that could serve a mobility project to another university. **Each of the 9 NEOLAIa universities would be responsible for one session, to cover almost an academic year**. In 2026, the infrastructure seminar could be continued or centred on the presentation of clusters of specialised researchers.

Possible format for the sessions:

- Short reminder of the context: the NEOLAIa alliance and the Health and medicine network
- Quick overview of the main facilities in one university
- Detailed presentation of an equipment or technique with several examples of its different use
- 30 minutes of free discussion around the equipment with the attendees.

It was suggested to record the sessions for dissemination.

Some suggested topics:

- The university of Tours hosts level 3 **facilities for large animals** that are quite unique. It would be interesting to know what infections they are studying. It could also be a presentation of the **microscopic lab** that develops specific techniques.
- There are **MRI with cameras** hosted in different locations and for which it would be very interesting to know what are the scientific questions related to their use.
- In UJA different research specialities were involved to develop a single methodology to study **microbiota and physical activities**. This subject could propose if the UJA department agrees.
- The university of Suceava can introduce to **metagenomics**.

First draft of programme:

N° webinar	Period of the year	Institution	Possible topic
1	Jan 2025	ORU	MRI with cameras
2	Fev 2025	UT	
3	March 2025	SVK – Suceava	Metagenomics
4	April 2025	UNIBI	
5	May 2025	UJA	Microbotia and physical activities
6	... to continue...		

The proposition will be submitted to the network and completed to obtain a **final programme of seminar for the 15th of December 2024** and create a flyer with the dates, topics and the Teams links to connect to each session.

5 – Walking tour in the university & hospital labs

Set up in 1995, the **core facility for Biological Systems Analyses** is a major cross-disciplinary infrastructure at the University of Tours. It brings together most of the heavy equipment and corresponding skills in two major areas of biological analysis, and to a lesser extent materials analysis, namely Imaging and Chemical Analysis. This facility is divided into five departments corresponding to specific technological areas:

- Microscopy department (electronic and confocal)
- Metabolomics and chemical analyses department (NMR, infrared spectrometry, mass spectrometry, biological and medical MRS)
- Genomics analysis department (genetic, genomic, and transcriptomic)
- Preclinical Imaging department (rodents and non human primates imaging)
- Cytometry department (cytometry and cell sorting)

This workflow enables an integrative and correlative approach to life sciences: from the microscopic to the molecular scale. Each department provide the resources and skills needed to carry out user-led-projects, and therefore the facilities are actively monitoring technological developments in close coordination with the areas of excellence defined by the University.

To know more about the platform: <https://pst-asb.med.univ-tours.fr/wp/>

Secretary: Isabelle Saussereau – isabelle.saussereau@univ-tours.fr

Scientific director: Patrick Hémont - patrick.emond@univ-tours.fr

6 – How to develop student mobility

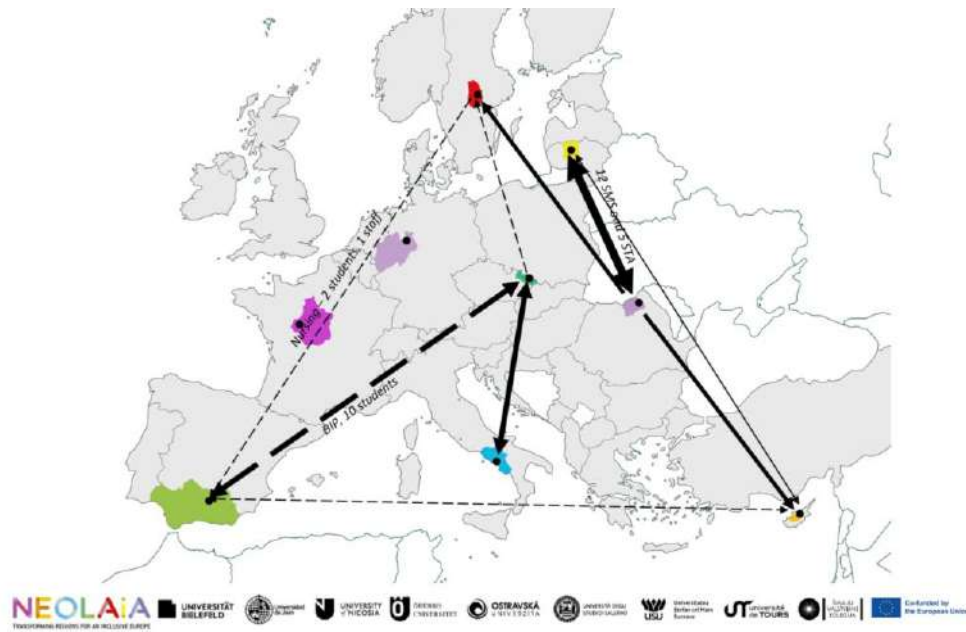


Figure 1. Existing Health Erasmus agreements in the NEOLAIa Alliance: an inventory by the NEOLAIa WP4 mobility support team

Student mobilities at the School of medical sciences of the university of Tours

**Prof Elisabeth Hultgren Hörnquist, Malin Bertilsson and Prof. Hans Hjelmqvist (ORU),
Internationalization coordinator, School of Medical sciences**

The School of Medical Sciences of the university of Örebro hosts around 700 students following a 6 years programme divided in four cycles of six themes each (I – Tissues, cells and molecules, II – Health and disease, III – Diagnostics, treatment and prevention, IV – Medical specialisation). Two windows of opportunity for international mobility were identified, during the Bachelor thesis project (semester 6) and the master thesis project (semester 10), allowing a **60 days bilateral student exchange with the Medical School of the university of Nicosia involving 8 students** with Erasmus+ scholarships, in may-april 2024. The outcome of the exchanges were very positive despite some difficulties:

- Differences in teaching: practical training at paediatrics and obstetrics clinics (ORU) vs more theoretical knowledge (UNIC)
- High cost of the exchange: housing, transport and insurance in UNIC, food in Sweden – 3800 euros)
- FOMO syndrome – Fear of Missing out the exams.

Adjustements were made for another **bilateral student exchange with the university of Ostrava: an Erasmus+ Short intensive training (2024-2027):**

- minimum of 3 ECTS and a virtual component that can be done before, during or after the exchange
- 2 weeks exchange of max 2 students in each direction per mobility – first 2 weeks in dec. 2024 (Departement of Infectious Disease), next 2 weeks in march (incoming)-april (outcoming) probably in cardiology.

The ORU international coordinators of the School of Medical sciences finally discussed a **bilateral student exchange with the university of Tours** for year 6 UT students and year 4 to 6 ORU students to start in October 2025 with a maximum of 5 students in each direction to engage in an **Erasmus+ Short intensive programme** of four weeks with clinic placements.

The two windows of opportunity for ORU medical students in year 3 (bachelor thesis project – April-may and nov-dec) and year 5 (master thesis project – feb-may and sept-dec) are **opportunities for internationalisation thanks to research internships with a joint supervision ORU/NEOLAiA partner**.

Matthias Buchler reminds the existence of **UT research programmes for medical students** that can be important opportunities of international mobility.

Student exchanges at the faculty of medicine of the university of Ostrava

Pr Jozef Škarda, Vice-Dean for Strategy and Development at the faculty of medicine of the university of Ostrava, international coordinator

The medical faculty of the university of Ostrava offers medical and nursing and related studies to its 1934 students with a **long term experience with Erasmus programme (staff and student mobilities), especially with italien universities in general nursing and general medicine**. The presentation details the windows of opportunity and student exchanges with the medical school of the university of Ostrava and **every clinical placements available with contacts**². The experience shows difficulties and success:

- **Outcomes of the strict medical curriculum with strict accreditation rules in OSU** – If OSU medical students want to study abroad, the syllabus of the exchange has to strictly overlap the OSU syllabus. It is not always possible to acknowledge every disciplines. This is the main challenge regarding nursing exchange programmes that must be short term to respect clinic rotation. For activities that are not acknowledged, students have to consider it as extra activity, above the standardized schedule.
- **Very positive feedbacks on incoming students stay for short term exchanges** – quality of the clinical teaching at the hospital of Ostrava, in very small groups with hands on patient experience. A student in internal medicine will have the opportunity to examine the patients, fill out the documents in English and go through the whole procedure as would do a practitioner under supervision.

The strict OSU curricula **not allow our students to go for a year on an Erasmus programme**, even if the medical school of the university of Ostrava welcomes incoming students for yearly programmes. Some incoming students even come back for several yearly Erasmus programmes.

Question – Are there 12 weeks exchanges? The rules in Czech Republic are strict: we can acknowledge 12 week as clinic rotations for the 6th year, but we cannot acknowledge the exams because we have 6 state exams at the 6th year for which the theoretical part must be done in Czech Republic under the supervision of a committee. 12 weeks would be feasible for us and very nice actually.

² Neurosurgery – Anesthesiology and intensive care – Oncology – Cardiology – Internal medicine – Radiology – Surgery – Emergency – Gynecology – Ophthalmology – forensic medicine – pathology – neurology – endocrinology

Internationalisation of education at the School of Health Sciences of the university of Örebro

Diederic Brummer, Head of Administration, School of Health Sciences (ORU)

The School of Health Sciences of the university of Örebro hosts many health sciences based programmes, with the **same problem of strict accreditations**. The School is involved in different mobility programmes:

- European Nursing Module ENM - A European network that offers **short exchanges in nursing programmes** to get an insight of other European health systems. ORU students are moving for about **2-3 weeks to do clinical and practical trainings** in another city of the network (around 10 outgoing students and 3 to 4 incoming students every year).
- International perspectives in Nursing: a **preparatory course for an internship in the Global South** to promote intercultural competences – the programme is looking for partners (contact: Malin Karlberg Traav)

The internationalisation of the school is not the most advanced, but there are **also initiatives in sport sciences** (sport management programme) and opportunities for european mobility of the students.

Student mobilities at the medical school OWL, Bielefeld university

Matthias Buchler first commented on the **student exchanges in construction between the university of Tours and Bielefeld university**. In the NEOLAIa context, **one of the main problems is the language**. If the language is german or Spanish, it is easier to find students. With the university of Tours, the team working on an Erasmus exchange started to identify possible clinical trainings and departements that will welcome students speaking English, but what about the contact with the patients that do not speak English? It requires to identify departements that will also welcome English speaking patients for the clinical training. The other step is to find same topics to have clinic rotations to start first student exchanges in 2025.

Mélanie Brand, Anja Bittner and Anna-Susan Franke, medical School OWL, Bielefeld university

Having Erasmus exchanges is a big challenge for the medical school of the university of Bielefeld because the school is **only four years old**. But the international coordinators want to take the opportunity of NEOLAIa to foster exchange possibilities. They studied the programme to identify the best year for student exchanges according to the different level of the students. It implied changes of the programmes themselves. They also had to decide how many students could be exchanged in relation to the number of incoming students to include in UNIBI study groups. It was a long process, but step by step, meeting after meeting, the team managed to obtain results and go further.

Student mobilities in health and medicine at the university of Jaén

David Cruz Diaz, Professor in Physiotherapy, Faculty of Health sciences, university of Jaén

For Erasmus students, Jaén is an attractive city, with the advantages of Andalousia (including regarding the cost of life and accomodations). Its closeness to important cities of Spain like Madrid, Malaga or Granada, reinforce its attractiveness. The importance of olive oil production came with European financial support, especially in Health Sciences, which has led to the development of important research projects regarding the benefits of olive oil in different pathologies like cancer or in immunology, creating a dynamic research environnement.

The university of Jaén is **medium sized with around 15 000 students** and 52 bachelor degrees, 53 master degrees including official master's degrees that lead to doctoral studies with 20 PhD programmes and 2 in Health Sciences. **The Health Sciences faculty has a bachelor degree in psychology, in nursery and physiotherapy and a study programme in medicine** that was created only three years ago. The bachelor degrees of nursing and physiotherapy are four-years degree programme, but the degree programme in medicine is the same all over Europe (six years). The students in nursery and physiotherapy learn the basic science subjects (Physiology, microbiology, anatomy...) during the first two years and have practical training in clinics during the 3rd and 4th year.

The faculty has around **48 active agreements with universities from all over Europe**, including Italy, Czech Republic or Nicosia. Still, there are some **barriers to international mobility** and sometimes innovative solutions:

- **the language** - If all the courses are in English and the document is in English, there are different levels of language according to the courses, from 1 to 3 and often courses are given with a level 2, rarely with a level 3.
- **The lack of clinic training opportunities to welcome student a hole year** – the rule is one student per one nursery or medical doctor
- **Contact with patients during clinic training** – the university developed a *buddy programme* that consists in one student in physiotherapy, nursing or medicine working all the time with a Spanish speaking student responsible for translations.
- **Compatibility of the subjects between courses** – As coordinator of 10 Erasmus programmes, David Cruz Diaz now recommend to his students to go the whole year, especially during the third course in physiotherapy and the third course in nursery.

There is no Erasmus agreement yet for the medical degree programme, NEOLAIa constitutes a real opportunity to develop the internationalisation of the programme, considering the importance of possible clinical trainings.

7 – Discussion on innovative pedagogical projects

FrimeL enabling inclusive teaching in Medecine

**Christian Brandt, Professor in Epileptology with a focus on medicine for the disabled, Medical School
OWL, university of Bielefeld**

The OWL medical School of Bielefeld University has a **strong specialisation in disability medicine, with three dedicated professorships** in relation to the high expertise already existing at the hospital at the moment of the creation of the medical school. Disability medicine is a discipline that process with disabilities, intellectual one in the case of the FrimeL project, involving patients with limited verbal communication skills, limited ability to cooperate and presenting atypical concomitant diseases. Very often, hospitals are not equipped to meet the needs of this population for whom hospitalisation is even more stressful than for the rest of the population. Some practices are encouraged like the use of an easy language, the creation of a calm atmosphere, the careful search for concomitant diseases, or the preparation with the family of the hospital admission.

In this context, the FrimeL project developed at the Bethel Epilepsy Centre (Mara Hospital, Bielefeld) aims to **create inclusive teaching structures** and innovative approaches to knowledge transfer in the medical field. It also aims to create **the course for the training of inclusive teaching assistants**.

The approach is **interdisciplinary** with a project team composed of inclusive teaching assistants (staff having themselves disabilities), a social worker, a teacher, a psychologist, an educational scientist. Christian Brandt described in details the training of the inclusive teaching assistants and their key role in providing support for the university medical teaching. The pedagogical project is currently under scientific evaluation based on quantitative and qualitative methods and the analysis of the feasibility of the teaching. **The change of perspective with the inclusion of experts by experience in the teaching** enables medical students to gain an understanding of specific needs and contributes to the implementation of UN Convention on the Rights of Persons with Disabilities.

Mindfulness meditation: an educational experiment

**Jean-Philippe Cottier, professor PU-PH, director of radiology service of the CHU of Tours, IBrain
research unit**

The practice of mindfulness meditation has been gaining ground in various areas of society over the last twenty years, due to its positive effects on stress management. Mindfulness meditation is a form of mental training and, among other things, has its origins in Buddhist psychology that aims to develop universal qualities of attentive presence, compassion and wisdom. Its application in a structured and secular setting has made it **possible to study its effects using a neuroscientific approach**.

Meditation practices are diversified, from formal exercises (meditation sessions) to daily activities. Jean-Philippe Cottier presented the benefits observed with the practice of mindfulness (stabilisation of attention, regulation of emotions, greater self-awareness) and its favourable impact on health (neuroendocrine system, immune system, ageing). In recent years, this little-studied therapeutic practice

has been the subject of an **increasing number of scientific publications assessing its role in the mental well-being of populations**, particularly as a complement to other therapies.

The effect of mindfulness meditation on medical students has also been studied even if the effects remain unclear. In the post-covid context, and more specifically in relation to the concern for the mental health of students, Jean-Philippe Cottier detailed an experiment with a group of medical students preparing final exams that were submitted to 8 sessions of mindfulness meditation, to learn the practice and acquire guidelines. The group recognised the benefits of the sessions that reduced anxiety and ruminations, fostered a group dynamics, made them aware of the importance of self care, and improved the relationship between caregiver and patient.

Jean-Philippe Cottier finally presented **existing educational programmes and tools related to the teaching of mindfulness meditation in medical studies** of the University of Tours and in other international universities, especially the university of Montréal that hosts a dedicated centre.

8 – BIP and traineeship projects in medical and paramedical studies

Claire Durand, project manager in mobility, NEOLAIa office (UT)

Blended Intensive Programmes reunite at least **3 universities with an Erasmus charter in 3 different countries** whose teacher-researchers decide to cooperate on a course and agree on the teaching content. BIPs have a **virtual component**. Students participate in virtual content once, a few times or regularly throughout the semester. They can also be in contact with students from the other participant universities to work remotely on a project. They also imply **one mobility** at the host institution that lasts a **minimum of 5 days and a maximum of 30 days**. The usual duration is one week. During this physical mobility, students may work in groups, attend classes together and take part in social activities. Teachers may join via STA teaching mobility and participate in the teaching activities.

Claire Durand precised conditions of **accreditation** and **fundings**. The presentation also includes all the **contacts of the NEOLAIa Mobility Support Team**, that are resource staff for the creation of BIPs in the alliance.

Link to the presentation: <https://view.genially.com/66f16273a76df7785dc7c4f4>

Andersson-Norrie Ida, International Strategy Officer (ORU), “experiences of BIPs”

Ida Andersson-Norrie introduced to **lessons of past Blended Intensive programmes (BIPs)**. If they take time for teachers as well as administrators and are not regular courses, BIPs are also excellent opportunity for programs without mobility windows, more inclusive and also a way to do niche courses (to all levels) and integrates the intercultural dimension. Past experiences of BIPs showed that they were opportunity to connect teachers (and researchers). To be successful, the creation of a BIP implies to start early and make a time plan to anticipate the deadlines for student applications, and to connect students before the physical mobility. The organization of students housing is too time-consuming and should be let aside. Of course Social activities strengthen ties.

Link to the padlet (work in subgroups): <https://padlet.com/idaanderssonnorrie/bip-neolaia-health-medicine-fry41vaq4vww54rd>

9 – Walking tour in the Simulation Centre and the Fac Lab of the university

The Medical Simulation Centre of the university of Tours (MEDICIM)

The Simulation Centre of the UFRs of Medicine, Odontology and the School of Surgery of the University of Tours offers first-class facilities to enhance the skills of the students with debriefing Rooms for constructive reflection after simulation sessions, ten Immersive Simulation Rooms, procedural Spaces for practising medical and surgical procedures, a dental Care Room and dental care technical platforms equipped with 28 simulators featuring the latest technology are available to dental students.

To know more about the Simulation Centre: <https://medisim.univ-tours.fr/>

The Faclab of the faculty of medicine of the university of Tours

The faclabs are multimedia creation centres spread over 3 sites at the University of Tours (Deux Lions, Grandmont and Tonnellé). Their purpose is to help students learn digital production techniques through teaching projects initiated by teacher-researchers. These friendly, interactive spaces also help students to develop cross-disciplinary skills such as group work and project management. The Faclabs team supports teachers and students in carrying out these digital projects over the course of a semester or academic year, using the equipment and technical resources available there.

To know more about the FacLabs of the university of Tours: <https://newteach.univ-tours.fr/>

Contact: newteach@univ-tours.fr

Annex 1 - Photographs of the meeting

Introduction, 2024 September 26



Research in Health sessions, 2024 September 26





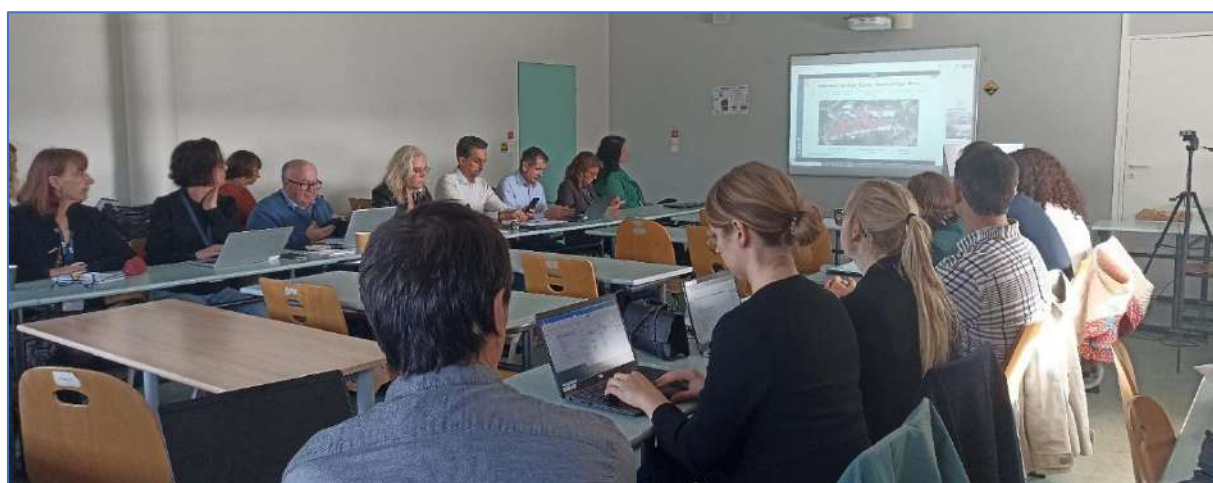
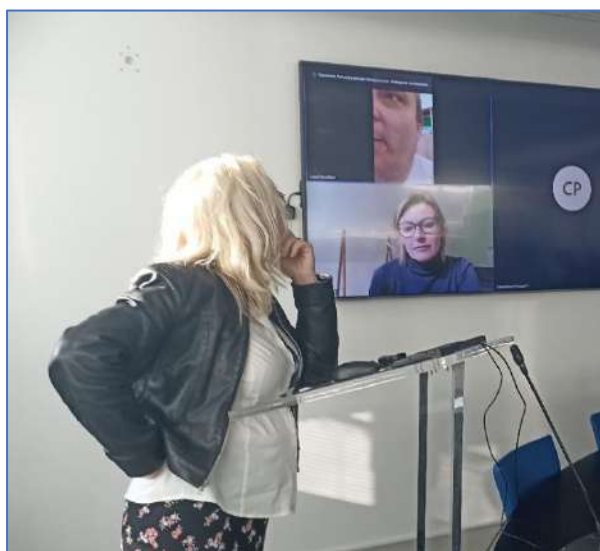
Visits of the hospital labs



Cocktail at the City Hall of Tours



Student mobilities and pedagogical innovation, September 27



BIPs Sessions, September 27



Visit of the Medical Simulation Centre and Fac Lab



Annexe 2 – Building research synergies: discussed key points

While discussing topics and formats for a **NEOLAIa health and medicine seminar**, the group addressed more general aspects relating to communication within NEOLAIa and the involvement of researchers in collaborations. Here is a summary of the discussed key points.

Who would be the public targets of NEOLAIa scientific seminars?

The group discussed the possibility to open the sessions to the medical students. But several reminded that the communication to the students is very different from the communication to other researchers, and that **the targeting of researchers interested in the topic should be the priority**. Even for the researchers themselves and the NEOLAIa health and medicine network, the idea is **not for them to connect to every remote sessions** (quite unrealistic) but to some of them.

Ignacio Rangel and Ida Andersson-Norrie, as NEOLAIa WP5 Research leader team, reminded that the WP5 research includes a **focus on young researchers** (PHDs and post doc – 5.4. task), it could be an opportunity to connect the two initiatives. To involve PhD students, the NEOLAIa health and medicine network could think of **accreditations** (for instance after following 10 sessions).

Ida Andersson-Norrie added that it could also be interesting to have the **regional representatives and also hospital representatives** to engage in the network.

The group agreed on the need to insist on the fact that each university would only be leader of a session once a year and that if only two persons assist to a remote session, it is still a start for networking.

How to create Health research synergies in the NEOLAIa alliance?

Matthias Buchler noticed that the morning presentations showed how widespread some topics and specialities are widely shared in NEOLAIa universities, in nutrition, nursing, physiology, infectiology, mental health which means that researchers will be interested in specialised sessions. Having thematical sessions could then be **the basis of a network of health researchers that could go further** to build specialised conferences or **engage in practical trainings** or short research programmes of six weeks.

Mihai Covaşă agreed on the fact that **a first step would be to actually know each others and the researchers sharing the same speciality** to have groups that would connect online to present their specialities and from there to develop something bigger that would lead to those groups to organise themselves and propose conferences to which the core NEOLAIa health and medicine network is not necessarily attendees. CP reminds that this was the **purpose of the repository of NEOLAIa health and medicine teams**, to identify strengths in each NEOLAIa universities and related teams in the partners.

Having clusters of researchers per specialities is networking at a next level, Ignacio Rangel commented on, that implies to know in details who are the cardiologists, the psychologists, and so on, and contact them directly. It implies to have a directory of researchers to get the good contacts. To start is always the most difficult and requires to identify who would want to be the **first constellation of specialised health researchers** and individuals to take the lead.

AF reminded the particular situation of the OWL school of medicine at UNIBI that is growing every day and where it is therefore difficult to mobilise researchers on internationalisation because of the priority to other missions.

A seminar dedicated to infrastructures: how to motivate researchers to engage in networking?

The group agreed at first to have a monthly remote seminar for clusters of researchers (one per session) presenting a summary of their work and have the opportunity to know each others. Elisabeth Hultgren Hörnquist reminded that **at the ORU Health and Medecine network meeting, a broad division between the different universities was proposed** with UNIC in medical education and evaluation, ORU in basic sciences and biomedicine, OSU in sports and physical activity, UT in clinical medicine, SVACKO in health sciences and SVK in medical technology.

But such **clusters of researchers are not sufficiently identified yet**. Ignacio Rangel reminded the difficulty of mobilising groups of researchers that do not necessarily need networking and the need for arguments for mobilisation. If a NEOLAIa research group is forming in virology, it is because a course in a new programme is prepared, or a new call to apply for is released, justifying the seek for a constellation of colleagues to collaborate with and share infrastructures with. In the NEOLAIa context, means for the mobility of researchers can come from seed fundings, Erasmus staff fundings, or special programmes like the Loire Val Health programme but not directly from the NEOLAIa project budget.

The group agreed on the fact that a focus on infrastructures could draw immediate interest. Every researcher is engaged in specialised networks, on genetics, the study of Hepatitis C and so on. But, as Mihai Covaşă, Philippe Roingeard and Louis Lantier commented on, it is very different and way more difficult to create collaborations with colleagues in a particular university when you don't know them and whose research may not fit exactly your needs. But when you need a particular method, a particular technique or a particular cohort, or any facility for your research, you will probably be more engaged. Thus, a presentation of infrastructures and methodologies that could be of help for other researchers and discover the partners' facilities in what would be a **health infrastructure forum** could be a good way to initiate collaborations and could lead to the identification of clusters of researchers based on research areas.

Presenting the **uniqueness and specialty of each university** allows research teams to think of the way to use these infrastructures in their projects and **increase the transversality of research** that is so important to answer the biggest national and European calls. Furthermore, by getting out of health specialities, many domains can be involved around a core facility.

Ignacio Rangel reminded that **the WP5 infrastructure mapping could be of help to build a NEOLAIa seminar dedicated to infrastructures**. Infrastructures include epidemiological cohorts and biological banks whose inventorying for research purpose could be interesting, but the UT one would probably be difficult to share due to legal restrictions.

How to communicate on NEOLAIa scientific activity in general and NEOLAIa seminars in particular?

The group discussed means to communicate on scientific material and the alliance, considering that NEOLAIa is not known at all and requires to do more on social media. The **NEOLAIa website** that will propose three access points, for researchers, staff and students, then space to host the remote sessions of the NEOLAIa health seminar. IAN reminds that it could be important to **showcase the health and medicine network on the NEOLAIa website**. The WP5 research mapping that will be on the website will be another way to showcase the research of the partners in an interactive way. The sessions of the NEOLAIa seminar could be recorded and added to the NEOLAIa youtube. With the creation of different NEOLAIa scientific networks (in law, history, health, literature at least), communication becomes an issue to raise in the NEOLAIa project, in relation to WP5 research, WP2 pedagogical hub for PhD students, WP8 open science and WP10 dissemination.