

CONTENT

- Message from the HARC Coordinator
- HARC Activities
- HARC Twinning
- HARC Interview

NEXT EVENTS

• WORKSHOP I

"Nutrition and diet for age-related cognitive decline and dementia"

March 6th - 7th, 2014

• WORKSHOP II

"Age-Related Diseases: Mechanisms and New Trends in Treatment and Prevention"

March 27th - 28th, 2014

• WORKSHOP III

"The role of respiratory infections in exacerbation of chronic respiratory disorders in the elderly"

May 29th - 30th, 2014

EDITORS:

Martyna Głogowska
 martyna.glogowska@umed.lodz.pl
 dr Joanna Makowska
 joanna.makowska@umed.lodz.pl

harc.umed.pl

MESSAGE FROM THE HARC COORDINATOR



Dear Colleagues,
 One of the most important challenges for all Europeans and specifically for the European medical and research community is the problem of ageing society. Poland, located at the heart of Europe, shares this problem with other European countries: our population is considered as one of the most rapidly ageing.

Although medical research, related to the healthy ageing, have been carried out at the Lodz Medical University for several years, already two years ago a group of researchers representing various areas of basic and clinical sciences came up with the idea of bringing their potential together to focus on selected issues of healthy well-being. That is how the Healthy Ageing Research Centre (HARC) was officially created. Last year our application to the European Commission 7 FP call was successful: we were granted RegPot funds to further develop the center scientific excellence with ultimate goal to become a distinguished medical research center in the field of ageing-associated diseases.

We want to achieve this goal by improving the research infrastructure, integration of existing and development of new projects, as well as by extensive collaboration at the international level. The most importantly, we managed to invite 21 distinguished international scientists from the most prestigious Universities to join us as our twinning partners for the project. Eight new experienced researchers will be offered positions at our center for 3 years to further enhance the quality of the research conducted in our laboratories. Workshops and conferences, which will be organized in Lodz over the next three years, should further strengthen international collaboration and help us to develop new ideas for the future.

And the last, but not least - our aims go beyond research! We intend to raise the awareness of healthy ageing beyond the scientific community to authorities, industry, but also to

general public.

Twelve internationally recognized scientists and representatives of local community agreed to act as members of the HARC Advisory Board - they intended to get together later this year, and we are looking forward for their counseling and support.

The official HARC kick-off meeting was held in Lodz on September 27th, 2013. You will find a report of this event in this issue of the Newsletter and on the HARC website. The program included scientific session (open to general public) with international speakers addressing the most burning issues related to healthy ageing research, and closed get-together of the HARC partners and EC representatives to discuss current activities and plans for future collaboration.

Six months have passed from the official starting date (June 1st, 2013) and the project is already well underway: all work packages are developing their activity assisted by Kinga Zel, a newly recruited HARC Project Manager. The first guest researcher, Professor Richard Yanagihara from University of Hawaii, Honolulu (US), a renowned expert in the field of Hantaviruses arrived in Lodz and spent the last months with prof. Liberski's group. A young researcher Sylwia Moskwa from the Department of Immunology, Rheumatology and Allergy left for Imperial College in London to be trained at professor's Sebastian Johnston Lab in airway epithelial cell culture. The positions for both experienced researchers and technicians available at the HARC laboratories were advertised and applications for the positions are being submitted from all over the world. Several pieces of research equipment was already purchased and will be soon put into operation. On September 2nd, 2013 the official HARC website (www.harc.umed.pl) was launched, which should enhance HARC visibility and facilitate communication with local and international partners.

We are looking forward for fruitful collaboration with all our Partners to make the HARC project successful.

Professor Marek L. Kowalski M.D., Ph.D.


 HARC REGPOT Programme Coordinator
 Director, Healthy Ageing Research Center (HARC)
 Chairman, Department of Immunology,
 Rheumatology and Allergy
 Medical University of Lodz

HARC KICK-OFF MEETING SEPTEMBER 27th, 2013

On September 27th, 2013, in the Didactic Centre of Medical University of Lodz, the HARC kick off meeting was held. International Partners of the project, researchers from Medical University of Lodz, representatives of regional authorities and students had an opportunity to find out more details about the HARC project and met international researchers involved in HARC.

Kick off meeting was opened by HARC Coordinator – prof. Marek L. Kowalski, who welcomed guests and introduced International Partners, who attended the meeting. During the Introductory Session prof. Paweł Górski – Rector of the Medical University of Lodz and representative of Marshal and of Governor of Lodz, gave short speeches – in which they emphasized the importance of the HARC project in the context of aging of society. The representative of European Commission – Mr Lucas Janssen presented aims, objectives and expected results of participating in European RegPot Programmes.

Introductory Session was closed by the lecture “Clever ideas for successful ageing”, presented by prof. Magdalini Tsolaki from Aristotle University of Thessaloniki, Greece. Professor Tsolaki was telling about life style modifications which can significantly shorten our lifespan and she enumerated interventions which can improve mental and physical well-being in elderly.



After the coffee break all participants of HARC kick off meeting attended scientific symposium “Medical Research for Healthy Ageing”, which was hosted by prof. Sven-Eric Dahlen and prof. Czesław Cierniewski. During this part leaders of Research Areas

presented research aims of their teams. International Partners gave the following lectures:

1. prof. Patrizia Mecocci (University of Perugia, Italy) – “Antioxidants, diet and cognitive aging”;
2. prof. James Ironside (CJD Surveillance Unit, United Kingdom) – “Protein misfolding and neurodegeneration – major challenges for healthy brain ageing”;
3. prof. Dimitri Mikhailidis (University College London, United Kingdom) – “Why we should stop smoking?”;
4. prof. Paola Chiarugi (University of Florence, Italy) – “Cancer associated fibroblasts and macrophages enhance tumor malignancy through regulation of EMT and stemness”.

At the end of Scientific Session, all guests were invited for lunch break.

The third part of the conference was opened only for HARC Partners. It was started by presentation of representative of

European Commission – Mr Lucas Jansen, who explained the administrative and financial issues of European projects. Workpackage and Research Areas leaders presented progress and future plans. Professor Maciej Banach led the discussion on future research and cooperation between HARC and International Partners.

At the end of this session, Coordinator of HARC project, prof. Marek L. Kowalski thanked everybody for coming and expressed hope that the kick off meeting would be the perfect beginning of effective collaboration.

On November 21st, 2013 the National Science Centre announced that two HARC Partners were awarded research grants. Prof. Marek L. Kowalski was granted a research grant “Role of miRNA in immune dysregulation and susceptibility to respiratory viral (rhinovirus) infections in the elderly patients with Asthma” for 36 months. The support is 211 476 euro. Prof. Maciej Banach was granted a research grant “Subfractions of high and low density lipoprotein as risk factors for hypertension” for 36 months. The support is 168 290 euro.



Starting from September 1st, 2013, the newly HARC Project Manager, Kinga Zel was recruited.

RESEARCH ON HANTAVIRUSES AT MEDICAL UNIVERSITY OF LODZ



Prof. Richard Yanagihara works the Research Centers in Minority Institutions (RCMI) program at the University of Hawai'i at Manoa. He has served as the RCMI Program Director since 2000 and as the principal investigator of the Pacific Center for Emerging Infectious Diseases Research since 2003.

His scientific explorations have taken the form of problem-based, disease-oriented, long-term, high-risk, multidisciplinary, opportunistic investigations of medically urgent phenomena of worldwide importance, conducted largely in the context of exploiting naturally occurring paradigms of high-incidence "place diseases" among human populations isolated by virtue of their genetics, culture and/or geography.

1. How do you like Łódź?

Have you already had a chance to see the city?

Although this is my third visit to Łódź, my previous trips were quite brief and I didn't get to do much exploring on my own. This time, I feel very fortunate to spend an extended period in Łódź through the support of the HARC Program. Now that I am taking the tram to the Medical University, I am getting a much better sense about the large academic community in this wonderful city, as well as the more hurried pace of life in Łódź. Coming from Hawaii, Łódź has a totally different climate and atmosphere, and I am enjoying it very much. I hope to see much more of Łódź and the surrounding areas in the weeks to come.

2. Could you tell us about your primary research interest which focuses recently on hantaviruses?

Hantaviruses belong to a newly described genus in the family Bunyviridae, which comprises more than 350 members. Some hantaviruses cause severe diseases in humans, affecting kidney function (in the case of hemorrhagic fever with renal syndrome) or the lungs and heart (as in hantavirus cardiopulmonary syndrome). The former type of disease is more common in Europe and Asia, while the latter is more common in the Americas.

Hantaviruses have long been known to be carried by rodents of multiple species. Our recent work now shows that other small mammals, particularly shrews, moles and bats, also harbor hantaviruses.

Further work is necessary to determine the human health risk of such previously unrecognized hantaviruses, and whether certain groups, such as the elderly, are more susceptible to infection and disease.

3. How advanced is the area of research on hantaviruses in Poland?

As evidenced by the low number of published reports, little has been done in the way of hantavirus research in Poland, so the opportunities are almost unlimited. Previously, in collaboration with Professor Paweł P. Liberski and Professor Janusz Markowski, we reported the first hantavirus from Poland in 2004. This virus is called the Łódź strain of Tula virus, and it was isolated from tissues of a rodent, known as *Microtus arvalis*, or the common vole, captured in Łódź. More recently, we have detected a totally new hantavirus, named Boginia virus, in the Eurasian water shrew (*Neomys fodiens*) in three locations in central Poland (Boginia, Kurowice and Huta Dłutowska). In addition, our studies show that three distinct hantaviruses are circulating among shrews and moles in central Poland. This is an important finding from the standpoint of possible human exposure and disease. Much more research is needed to determine the human health risk of these newly recognized hantaviruses in Poland.

4. How important are hantaviruses for the aging population?

The aged population is at higher risk for most infectious diseases, in part because of their declining immune system and poor nutrition and other co-morbid conditions, such as diabetes and atherosclerosis. Far more research is needed to clarify specific risk factors for hantavirus-caused diseases among the elderly.



HARC YOUNG RESEARCHER IN LONDON

Sylwia Moskwa PhD student of Department Immunology, Rheumatology and Allergy of Medical University of Lodz, spent 4 weeks in London, working at prof. Sebastian Johnston's Respiratory Medicine Laboratory at National Heart and Lung Institute, Imperial College (HARC twinning programme). Under the supervision of Dr Michael Edwards, Ms Moskwa was learning primary cell culture of bronchial epithelial cells (HBEC) taken from asthmatic and non-asthmatic donors, infecting of HBEC with Rhinovirus (RV) and analysis of HBEC immune response of the molecular level.

EUROPEAN UNION SUPPORTS SCIENTIFIC RESEARCH



Lucas Janssen is Policy Officer of the European Union. He was one of the guests at the Healthy Ageing Research Centre kick off meeting on the September 27th, 2013.

1. Could you explain the importance of the RegPot programme?

The Seventh Framework Programme (FP 7) is divided into 4 parts and one of them is capacity building, under which the programme Research Potential (RegPot) is financed. RegPot's aim is to improve the research capacity for regions which are developing and for ultra-peripheral regions to help them to unlock their research potential by giving them the possibility to buy an equipment to start high level research, twinning and perspectives. Generally, RegPot provides opportunity for these regions to participate in the European research area. We hope that e.g. HARC will help Łódź in the future to participate in European research. RegPot has a budget of 120 mln euro for whole period so we had very large numbers of applicants but only 5% of the last call were selected. E.g. in the last year only proposals which had 14.5 or 15 points (out of a maximum of 15 points) were selected. That is very high. On the other hand it was very frustrating that many good projects were turned down. The main reason was not enough money. The system is that we ask experts to make a ranking of the projects. Projects get points and then - according to the ranking and the budget - we decide which projects will be funded.

2. Does European Union offer other options to support scientific research?

The 1st of January 2014 a new financial 7 year period starts

and Horizon2020 will play a crucial role to boost European research. In addition, there will be more opportunities to use the structural funds for the research. The capacity building aspects of FP7 should be addressed by the structural funds and therefore more money will be available for real research and capacity building. Present rules don't allow to combine structural funds and funds from FP7 but in the new programmes it will be possible, however it will be complicated, since the structures of both programmes are rather different.

3. How is the issue of healthy ageing addressed by projects from other European countries?

One of the other projects I monitor and which has just been finished has addressed this issue as well. In this project there were regions from the UK, Netherlands, Spain Switzerland and Hungary involved. Although the healthcare systems in these countries are very different, they saw that in all of these national systems the communication between different services in the health care system could be improved. Through improved communication better and quicker care can be provided and certain problems can be prevented or quicker resolved if information is (more quickly) shared between the different health services.

4. How do you assess HARC kick off meeting?

In my opinion and experience kick off meetings are always the most exciting meetings because there are people full of plans and full of ambitions. I can feel the energy and I feel that project participants really want to get started. That is very nice to see and that is what I have seen during HARC kick off meeting. You are very focused on the future, on Horizon 2020. You have also plans how to use future possibilities for getting new funds for your activities. That is very positive to me. What I also liked was a lot of interesting presentations which were very amusing. I can say good luck to you but I have to also say: keep this part where you can explain what you are doing to ordinary people because they will appreciate your work.

HARC ACADEMY OF HEALTHY AGEING

On October 30th, 2013 and on November 13th, 2013 the two meetings of Academy of Healthy Ageing were held. During the opening meeting the Director of Healthy Ageing Research Centre, prof. Marek L. Kowalski, welcomed guests of Academy, who could listen the opening lecture "How to live 100 years or even more" presented by prof. Tomasz Kostka (Department of Geriatrics, Medical University of Lodz).

The second meeting of Academy of Healthy Ageing included two lectures:

- How to be a healthy senior? – presented by dr Maria Kołomecka, the Coordinator of Academy of Healthy Ageing (Department of Pneumonology and Alergology, Medical University of Lodz)
- What Łódź can offer to its seniors? – "Activation of 60+" Programme - presented by Mr Wojciech Kosakowski (Department of Social Affairs, City Council of Łódź).

The Academy of Healthy Ageing meetings will be held once a month in Didactic Centre of Medical University of Łódź. So far meetings have been attended by over 300 seniors.

