



Newsletter #1

julij 2013

www.core.um.si

Univerza v Mariboru

Za aktivno in varno staranje v Podravju

Predogled vsebine

Staranje - aktualna tema tudi za mlade.

Obrnjena demografska piramida vodi v negotov položaj starostnikov v družbi. Smo pripravljeni na svojo starost?

Kreativno jedro CORE@UM kot odgovor na izzive staranja v Podravju.

Prioritetna področja raziskovanja CORE@UM.

UM vključena v Evropsko partnerstvo za inovacije za aktivno in zdravo staranje.

AHA@UM del delovne skupine B3 Integrated Care.

Priložnosti za sodelovanje.

Tržnica inovativnih idej, Norveški finančni mehanizem in Finančni mehanizem EGP.

Raziskovalni obiski.

Prof. dr. Philippe Cosenza iz University of Poitiers, Prof. dr. Etienne Roux iz University of Bordeaux Segalen.

University of Maribor

For Active and Safe Ageing in Podravje

Content Overview

Ageing – a Relevant Topic Also for Young People. Negative demographic pyramid leads to an uncertain position of elderly people in society. Are we ready for ageing?

Creative Core CORE@UM as the Response to Challenges of Ageing in Podravje.

Priority Research Fields of CORE@UM.

UM joined the European Innovation Partnership on Active and Safe Ageing.

AHA@UM a part of the Action group B3 Integrated Care.

Collaboration Opportunities.

Marketplace for Innovative Ideas, Norway Financial Mechanism and EEA Financial Mechanism.

Research Visits.

Professor Philippe Cosenza, Ph.D. from the University of Poitiers, Professor Etienne Roux, Ph.D. from the University of Bordeaux Segalen.

Staranje - aktualna tema tudi za mlade

Evropska unija se sooča z obrnjeno demografsko piramido, kar povzroča mnoge, z zdravjem povezane težave. **Evropsko prebivalstvo je najstarejše z mediano starosti skoraj 40 let**, ki bo pričakovano dosegla 46 let v 2050 (mediana starosti pokaže starost, pri kateri je pol populacije starejše, polovica pa mlajše). (United Nations Population Division, World Population Prospects: The 2010 Revision Highlights, 2011) Posledice staranja prebivalstva se v družbi kažejo **na področju zaposlovanja, značilnosti upokojevanja ter zdravstvenega varstva in oskrbe**. Položaj mladih se spreminja. Določene življenjske prelomnice dosežejo kasneje kot generacije pred njimi, postajajo redki vir, ki se ga ne uporablja in integrira dovolj. Kaže se potreba po novih oblikah medgeneracijske solidarnosti. Staranje prebivalstva za državo pomeni velik finančni pritisk na sisteme zdravstvenega in socialnega varstva in sisteme oskrbe, za posameznika pa se zastavlja vrsta vprašanj v zvezi z lastno socialno varnostjo in kvaliteto življenja. **Ali smo pripravljeni na svojo starost?** Za aktivno in varno staranje ne zadošča odgovoren angažma posameznika, ampak so potrebni tudi sistemski ukrepi ter razvoj podpornih storitev in produktov z raziskavami in inovacijami.

Podravska regija izkazuje daleč nadpovprečni indeks staranja v primerjavi z ostalimi statističnimi regijami v Sloveniji (indeks staranja predstavlja razmerje med številom oseb, starih 65 let ali več, in številom oseb, mlajših od 15 let):

- moški: 102.4; slovensko povprečje: 90.1,
- ženske: 166.1; slovensko povprečje: 146.2 (Statistični Urad RS, 2010).

Iz tega razloga je staranje v Podravju še posebej aktualna tema, h kateri lahko poleg sistemskih ukrepov dejavno prispevajo raziskovalne institucije, nevladne organizacije ter ostale zainteresirane institucije in posamezniki.

Kreativno jedro CORE@UM kot odgovor na izzive staranja v Podravju

Univerza v Mariboru s **CORE@UM** vzpostavlja **skupno inovacijsko in raziskovalno platformo v Podravju** na področju aktivnega in varnega staranja, ki bo **kreativno jedro inovacijskega ekosistema Podravja**. Profesorji in raziskovalci, študenti, doktorandi in post-doktorandi Univerze v Mariboru so vabljeni, da prispevajo k prebojnim in uporabnim rešitvam za zagotavljanje zdravja, varnosti in kvalitete življenja starostnikov, k promociji rezultatov ter h gospodarskemu in trajnostnemu razvoju Podravske regije.

Ageing – a Relevant Topic Also for Young People

The European Union is facing a negative demographic pyramid, connected with many health related issues. **Europe today has the oldest population, with a median age of nearly 40 years**, which is expected to reach 46 years in 2050 (median age is the age that divides a population into two equal-sized groups - half the people are younger and half are older). (United Nations Population Division, World Population Prospects: The 2010 Revision Highlights, 2011)

Consequences of population ageing in society can be seen **in the field of employment, characteristics of retirement and health care**. The situation for young people is changing. They experience certain life events later than the generations before them and are becoming a rare resource, which is not being used and integrated enough. There is a need for new forms of solidarity between the generations. Population ageing puts a lot of financial pressure on health care and social care systems. For individuals, a series of questions are being raised in connection with their social security and quality of life. **Are we ready for ageing?** Responsible actions of individuals are not enough for active and healthy ageing, systemic measures and development of supports services and products through research and innovation have to be undertaken.

The region of Podravje shows the highest ageing index in comparison with other statistical regions of Slovenia (ageing index shows the ratio between the number of people aged 65 and over and the number of young people under the age 15):

- men: 102.4; Slovene average: 90.1,
- women: 166.1; Slovene average: 146.2 (Statistical Office of the Republic of Slovenia, 2010).

This is why ageing in Podravje is a very relevant topic, to which research institutions, non-governmental organizations and other interested institutions and individuals, besides systemic measures, can contribute.

Creative Core CORE@UM as the Response to Challenges of Ageing in Podravje

The University of Maribor has established its **CORE@UM**, a **common innovation and research platform in Podravje** in the field of active and secure ageing, which will represent the **creative core of Podravje's innovation ecosystem**. Professors, researchers, students, doctoral students and postdoctoral researchers at the University of Maribor are invited to contribute to advancements and applicable solutions for ensuring health, safety and quality of life of elderly people, promotion of results and sustainable economic development.

Prioritetna področja raziskovanja CORE@UM

Vsebina CORE@UM je razdeljena v tri inter- in transdisciplinarno povezane raziskovalno-razvojne projekte (RRP):



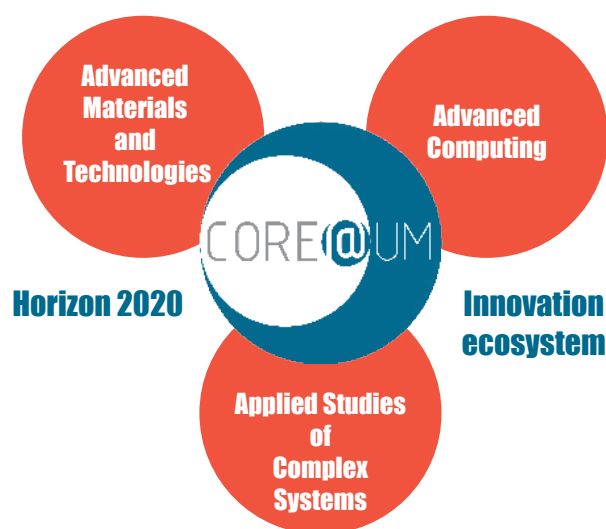
Tako zasnovan program bo zagotavljal razvojni preboj na naslednjih področjih:

- **novi materiali in tehnologije za spremljanje in nadzor stanja starostnikov, s starostjo povezanih obolenj ter napredni pristopi k njihovi oskrbi** (RRP1, RRP2),
- **zajem in analiza časovnih vrst fiziološkega stanja** (RRP2) ter na podlagi tega **modeliranje tkiv kot kompleksnih mrež** (RRP1, RRP2, RRP3) s starostjo povezanih bolezenskih stanj, kot so **nevrodegenerativne bolezni, diabetes in kronična ledvična bolezen** (RRP2, RRP3),
- **varen dom in večja vpetost starostnikov v vsakodnevno življenje**, oprema ter komunikacijske tehnologije za **lažjo dostopnost naprednih rešitev za starostnike** (RRP3),
- **modeliranje finančnih sistemov za postavljanje učinkovitih napovednih modelov za oceno finančnih posledic izbranih rešitev še pred njihovo vpeljavo v prakso** ter aplikacije študij kompleksnih socialnih sistemov in nastanka inovacij (RRP2, RRP3), ki bodo usmerjene v **razumevanje dinamike socialnega in finančnega položaja starostnikov**.

Področja raziskovanja CORE@UM povezuje horizontalna raziskovalna tema usmerjena v prioriteto področje bodočih Obzorij 2020 »Zdravje, demografske spremembe in blaginja«. Glavni cilj CORE@UM je **krepitev raziskovalne in inovacijske sposobnosti UM in regije za vzpostavitev novega KIC (Knowledge Innovation Community) na področju "Innovation for a healthy life and active ageing"** Evropskega inštituta za tehnologijo EIT v Podravju 2015.

Priority Research Fields of CORE@UM

The content of CORE@UM is divided into three research development projects (RRP) connected in an inter- and transdisciplinary manner:



A programme designed in such a manner will ensure further advancements in the following fields:

- **new materials for health monitoring of the elderly, age-related diseases and advanced approaches to their treatment** (RDP1, RDP2),
- **analyses of time series of physiological conditions** (RDP2) and based on that **modeling of tissues as complex networks** (RDP1, RDP2, RDP3) in relation to age-related pathological states, such as neurodegenerative diseases, diabetes and chronic liver disease (RDP2, RDP3),
- **safe homes and the integration of the elderly into everyday life**, communication technologies to provide the elderly with easy access to advanced solutions (RDP3),
- **modeling of financial systems for establishing efficient prediction models for the assessment of financial consequences of selected solutions prior to their implementation** and application of studies on complex social systems as well as innovation development (RDP2, RDP3) focusing on the **dynamics of social and financial situation of the elderly**.

Priority fields of CORE@UM will be connected with horizontal research topic focusing on the priority of Horizon 2020 entitled "Health, Demographic Change and Wellbeing". The main objective of the CORE@UM is to increase **the research and innovation capacity of the UM and Podravje region for establishing a future KIC (Knowledge Innovation Community) within European Institute of Innovation & Technology (EIT) under the topic "Innovation for Healthy Living and Active Ageing"** in the Podravje region by 2015.

UM vključena v Evropsko partnerstvo za inovacije za aktivno in zdravo staranje

Univerza v Mariboru je z majem 2013 del pilotnega projekta Evropsko partnerstvo za inovacije za aktivno in zdravo staranje (European Innovation Partnership on Active and Healthy Ageing). Evropsko partnerstvo je izbralo pobudo Active and Healthy Ageing for a Better Tomorrow (**AHA@UM**) in Univerzo v Mariboru uvrstilo v delovno skupino **B3 Integrated Care**. Dr. Uroš Maver se je 7. 6. 2013 udeležil sestanka delovne skupine v Bruslju kot predstavnik AHA@UM.

Evropsko partnerstvo je usmerjeno k izboljšanju kvalitete življenja starejših. Želi jim pomagati, da ostanejo aktivni člani družbe, in zmanjšati pritisk na zdravstvene in socialne sisteme, kar bo skupaj prispevalo k trajnostni rasti. Konkretnije, **pilotni projekt si prizadeva do leta 2020 podaljšati povprečno dolžino let zdravega življenja evropskih prebivalcev za dve leti**. Za doseg tega cilja Evropska komisija sodeluje z državami članicami, regijami, gospodarstvom, zdravstvenimi in socialnimi delavci ter organizacijami, ki zastopajo starejše in bolnike.

[Več informacij o Evropskem partnerstvu.](#)

[Več informacij o delovni skupini B3 Integrated Care](#)

Raziskovalni obisk Philippa Cosenze na Fakulteti za gradbeništvo

Prof. dr. Philippe Cosenza, **predavatelj in raziskovalec na University of Poitiers**, je v maju 2013 obiskal Fakulteto za gradbeništvo UM. Kratek raziskovalni obisk je bil namenjen zaključevanju skupne raziskave s prof. dr. Deanom Korošakom in oddaji članka, stekli pa so tudi pogovori o možnostih sklenitve sporazuma o sodelovanju med obema univerzama. Področje raziskovanja Philippa Cosenze obsega teoretično in eksperimentalno ugotavljanje fizikalnih (mehanskih in elektromagnetnih) značilnosti geomateriala – gline in modeliranje mehanskih značilnosti na mikro in makro ravni.

UM joined the European Innovation Partnership on Active and Healthy Ageing

In May 2013 the University of Maribor became a part of the pilot project European Innovation Partnership on Active and Healthy Ageing. European Partnership has selected the initiative Active and Healthy Ageing for a Better Tomorrow (**AHA@UM**) and has placed the University of Maribor in the Action group **B3 Integrated Care**. Uroš Maver, Ph.D. attended the Action group meeting in Brussels on 7 June 2013 representing AHA@UM.

European Partnership strives to improve the quality of life of elderly people. It wishes to help them remain active members of society and reduce the pressure on health care and social care systems, which will contribute to sustainable growth. To be more specific, **the overarching target of this pilot project will be to increase by 2020 the average healthy lifespan by two years**. To realize this target, European Commission brings together member states, regions, economic stakeholders, health care and social care workers and organizations, which represent elderly people and patients.

[More information on European Partnership.](#)

[More information on Action group B3 Intergrated Care.](#)

Research Visit of Philippe Cosenza at the Faculty of Civil Engineering

Professor Philippe Cosenza, Ph.D., **lecturer and researcher at the University of Poitiers**, visited the Faculty of Civil Engineering in May 2013. The purpose of his short research visit was to close joint research in collaboration with prof. dr. Dean Korošak and submit an article. Preliminary talks to conclude an agreement of cooperation between the universities also took place. Philippe Cosenza's field of research encompasses theoretical and experimental characterization of physical (mechanical and electromagnetic) properties of clay geomaterials and modeling "micro-macro" mechanical properties.

Raziskovalni obisk Etienna Rouxa

Prof. dr. Etienne Roux, **predavatelj in raziskovalec celične fiziologije in fiziologije živali na UFR Life Sciences, University of Bordeaux Segalen**, je bil od 24. – 28. 6. 2013 na raziskovalnem obisku na Univerzi v Mariboru. Raziskovalno sodelovanje med obema univerzama poteka že od 2001. Izmed uspešnih skupnih projektov lahko omenimo bilateralni projekt Modeliranje kalcijeve signalizacije in kontrakcije gladkih mišičnih celic dihalnih poti na nivoju celice in tkiva (2007-2009), ki je na slovenski strani potekal pod vodstvom prof. dr. Marka Marhla.

Priložnosti za sodelovanje

V Evropskem partnerstvu za inovacije za aktivno in zdravo staranje lahko sodelujete z udeležbo na »**Tržnici inovativnih idej**«. Jeseni 2013 bosta v Sloveniji objavljena dva javna razpisa **Norveškega finančnega mehanizma in Finančnega mehanizma EGP**. Ena izmed treh razpisanih prioritet se glasi »**pobude na področju javnega zdravja s ciljem izboljšati javno zdravje in zmanjšati neenakosti na področju zdravja**«.

Kontakti

Vodja CORE@UM
Prof. dr. Karin Stana Kleinschek (karin.stana@um.si)
Prorektorica za znanstveno-raziskovalno dejavnost UM

Vodja RRP1
Prof. dr. Zoran Ren (zoran.ren@um.si)

Vodja RRP2
Prof. dr. Borut Žalik (borut.zalik@um.si)

Vodja RRP3
Prof. dr. Marko Marhl (marko.marhl@uni-mb.si)

Operacijo z naslovom »Center za Odprte inovacije in Raziskave Univerze v Mariboru (CORE@UM)« delno financira Evropska unija, in sicer iz Evropskega sklada za regionalni razvoj. Operacija se izvaja v okviru Operativnega programa krepite regionalnih razvojnih potencialov za obdobje 2007-2013, 1. razvojne prioritete: Konkurenčnost podjetij in raziskovalna odličnost, prednostne usmeritve 1.1: Izboljšanje konkurenčnih sposobnosti podjetij in raziskovalna odličnost.

Research Visit of Etienne Roux

Professor Etienne Roux, Ph.D., **lecturer and researcher of cell physiology and animal physiology at the UFR Life Sciences, University of Bordeaux Segalen**, visited the University of Maribor from 24 to 28 June 2013. Research collaboration between the two universities has been active since 2001. One of the successfully completed joint projects is bilateral project Cell-to-tissue modelling of calcium-contraction coupling in airway smooth muscle: role of calcium signal decoding, cell variability and cell-to-cell coupling (2007-2009), coordinated by Professor Marko Marhl, Ph.D. for the Slovene part.

Collaboration Opportunities

In the frame of the European Innovation Partnership on Active and Healthy Ageing you can collaborate by participating at the "**Marketplace for Innovative Ideas**". In autumn 2013, two calls by the **Norway Financial Mechanism and EEA Financial Mechanism** will be published in Slovenia. One of the set priorities is called "**initiative in the field of public health with aims to improve public health and reduce health inequalities**".

Contacts

CORE@UM leader
Professor Karin Stana Kleinschek, Ph.D. (karin.stana@um.si)
Vice-Rector for science and research at the UM

RRP1 leader
Professor Zoran Ren, Ph.D. (zoran.ren@um.si)

RRP2 leader
Professor Borut Žalik, Ph.D. (borut.zalik@um.si)

RRP3 leader
Professor Marko Marhl, Ph.D. (marko.marhl@uni-mb.si)

Operation entitled "Centre of Open innovation and ResEarch UM (CORE@UM)" is co-funded by the European Regional Development Fund and conducted within the framework of the Operational Programme for Strengthening Regional Development Potentials for the period 2007 – 2013, development priority 1: Competitiveness of companies and research excellence, priority axis 1.1: Encouraging competitive potential of enterprises and research excellence.