OBESITY-RELATED PHENOTYPES ARE ASSOCIATED TO PARENTAL LONGEVITY IN A SWISS POPULATION-BASED STUDY

[1]Jaunin J., [1]Bochud M., [1]Marques-Vidal P., [2]Vollenweider P., [2]Waeber G., [3]Mooser V., [1]Paccaud F.

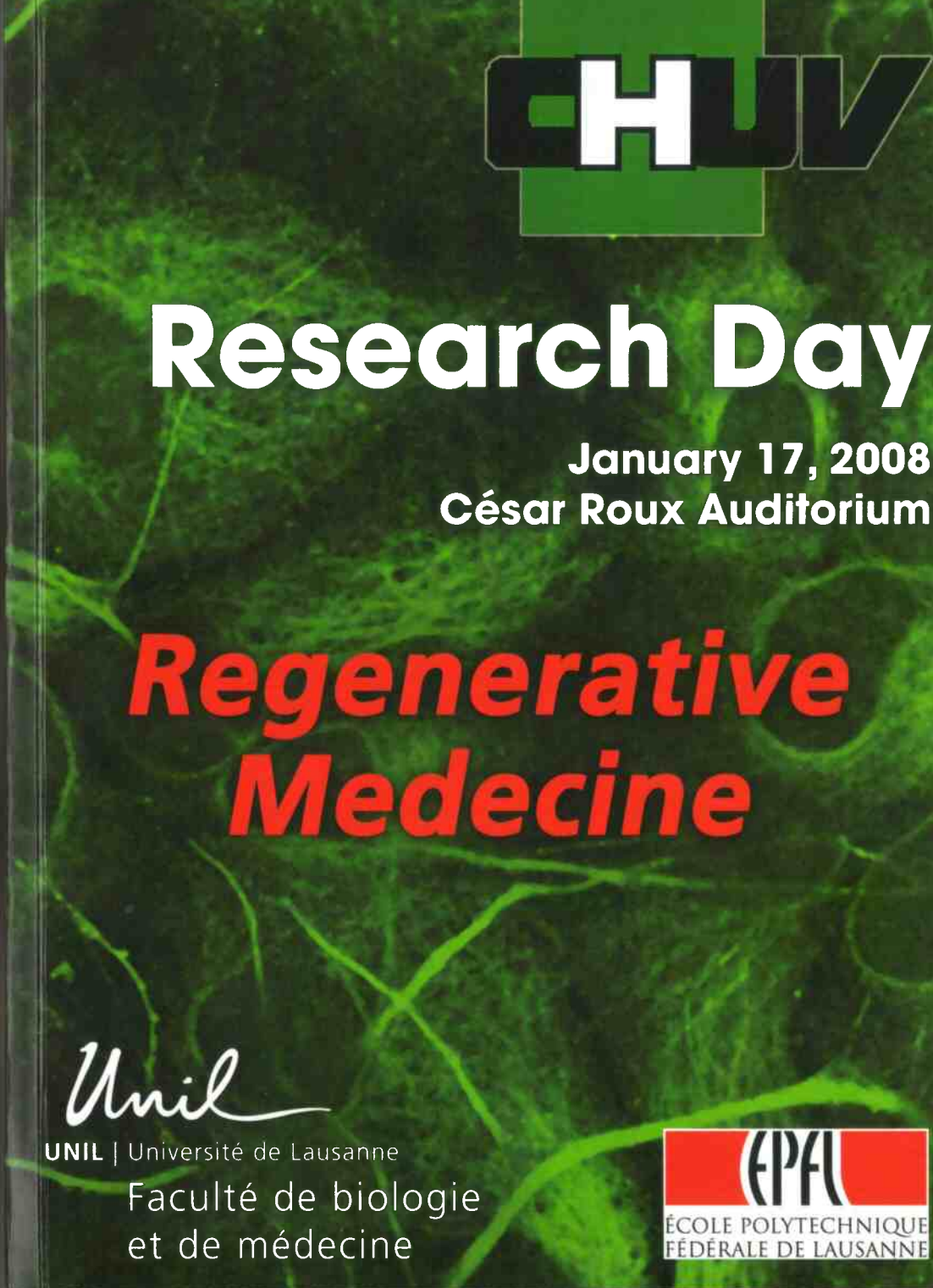
University Institute of Social and Preventive Medicine (IUMSP), University of Lausanne, Switzerland[1], Department of Medicine, Internal Medicine, CHUV, Lausanne, Switzerland[2], Medical Genetics, GlaxoSmithKline, Philadelphia, Pennsylvania, U.S.A.[3]

PURPOSE. Longevity has been attributed to decreased cardiovascular mortality. Subjects with long-lived parents may represent a valuable group to study cardiovascular risk factors (CVRF) associated with longevity, possibly leading to new ways of preventing cardiovascular disease.

METHODS. We analyzed data from a population-based sample of 2561 participants (1163 men and 1398 women) aged 55-75 years from the city of Lausanne, Switzerland (CoLaus study). Participants were stratified by the number of parents (0, 1, 2) who survived to 85 years or more. Trend across these strata was assessed using a non-parametric k-mean test. The associations of parental age (independent covariate used as a proxy for longevity) with fasting blood glucose, blood pressures, blood lipids, body mass index (BMI), weight, height or liver enzymes (continuous dependent variables) were analyzed using multiple linear regressions. Models were adjusted for age, sex, alcohol consumption, smoking and educational level, and BMI for liver enzymes.

RESULTS. For subjects with 0 (N = 1298), 1 (N = 991) and 2 (N = 272) long-lived parents, median BMI (interquartile range) was 25.4 (6.5), 24.9 (6.1) and 23.7 (4.8) kg/m^2 in women (P <0.001), and 27.3 (4.8), 27.0 (4.5) and 25.9 (4.9) kg/m^2 in men (P = 0.04), respectively; median weight was 66.5 (16.1), 65.0 (16.4) and 63.4 (13.7) kg in women (P = 0.003), and 81.5 (17.0), 81.4 (16.4) and 80.3 (17.1) kg in men (P = 0.36). Median height was 161 (8), 162 (9) and 163 (8) cm in women (P = 0.005) and 173 (9), 174 (9) and 174 (11) cm in men (P = 0.09). The corresponding medians for AST (Aspartate Aminotransferase) were 31 (13), 29 (11) and 28 (10) U/L (P = 0.002), and 28 (17), 27 (14) and 26 (19) U/L for ALT (Alanin Aminotransferase, P = 0.053) in men. In multivariable analyses, greater parental longevity was associated with lower BMI, lower weight and taller stature in women (P < 0.01) and lower AST in men (P = 0.011). No significant associations were observed for the other variables analyzed. Sensitivity analyses restricted to subjects whose parents were dead (N = 1844) led to similar results, with even stronger associations of parental longevity with liver enzymes in men.

CONCLUSIONS. In women, increased parental longevity was associated with smaller BMI, attributable to lower weight and taller stature. In men, the association of increased parental longevity with lower liver enzymes, independently of BMI, suggests that parental longevity may be associated with decreased nonalcoholic fatty liver disease.


c-HUV
Research Day
January 17, 2008
César Roux Auditorium
Regenerative Medecine
Unil
UNIL | Université de Lausanne
Faculté de biologie
et de médecine
EPFL
ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

CHUV RESEARCH DAY 2008

Thursday, January 17th, 2008

"Regenerative Medicine"

08:30 **Presentation of the 2008 Research Day**
Professor Ivan Stamenkovic, Vice Dean for Research

08:45 **Keynote speaker 1**

Professor Philippe Menasché
Department of Cardio-Vascular Surgery
Hôpital Européen G. Pompidou, Paris
"Promises and pitfalls of skeletal myoblast therapy"

09:30 **Coffee & Posters**

10:30 **6 short talks**

12:00 **Keynote speaker 2**

Professor Giulio Cossu
Stem Cell Research Institute, Milano
"Towards a cell therapy for muscular dystrophy"

12:45 **Lunch, Coffee & Posters**

14:00 **Keynote speaker 3**

Professor Michele De Luca
Department of Biomedical Sciences, Modena
Epithelial Stem Cell Research Centre, Venice
"Epithelial stem cells and regenerative medicine"

14:45 **6 short talks**

16:15 **Coffee & Posters**

17:00 **Keynote speaker 4**

Professor Lior Gepstein
Dept of Physiology & Biophysics, Technion – Haifa, Israel
"Myocardial Regeneration by Human Embryonic Stem Cells"

17:45 **Poster Prizes Ceremony**

18:00 **Apéritif & Buffet**

ATTENDANCE IS FREE - NO REGISTRATION IS NECESSARY

NOTE: Posters will be displayed from
Wednesday January 16st early morning to Friday January 18th early morning.

12 short talks

Schedule	Names, departments	Titles
Morning		
10h30 - 10h45	**Boris Hinz** Laboratoire de biophysique cellulaire - EPFL	*"The myofibroblast - friend and foe in tissue regeneration"*
10h45 – 11h00	**Matthias Lutolf** Laboratoire de cellules souches et bioengineering - EPFL	*"Bioengineering artificial stem cell niches".*
11h00 – 11h15	**Corinne Kostic** Unité de thérapie génique et biologie des cellules souches – Hôpital Ophtalmique	*"Gene therapy preclinical studies for Leber congenital amaurosis"*
11h15 – 11h30	**Anne Zurn** Chirurgie expérimentale - CHUV	*"Delayed peripheral nerve priming improves regeneration of sensory axons into the spinal cord following dorsal root injury."*
11h30 – 11h45	**Meta Djojosubroto** Unité de thérapie génique et biologie des cellules souches – Hôpital Ophtalmique	*"Increased chromosomal aberrations and transformation of adult mouse retinal stem cells"*
11h45 – 12h00	**Paola Bonfanti** Chirurgie expérimentale - CHUV & Laboratoire de dynamique des cellules souches - EPFL	*"Thymic epithelial cells have skin potency"*
Afternoon		
14h45 – 15h00	**Dominique Pioletti** Laboratoire de biomécanique en orthopédie - EPFL	*"In Vivo evaluation of human fetal cells as allogenic cell source for tissue engineering"*
15h00 – 15h15	**Mikaël Martino** Laboratoire de médecine régénérative et de pharmacobiologie - EPFL	*"Controlling mesenchymal stem cells response to biomaterials with recombinant integrin-specific fibronectin fragments"*
15h15 – 15h30	**Dela Golshayan** Nephrologie et Centre de Transplantation d'organes - CHUV	*"Mechanisms of Allograft rejection and tolerance in transplantation"*
15h30 - 15h45	**Jonathan Bloch** Médecine Interne - CHUV	*"Spleen derived vascular progenitor cell transfer restores metabolic and vascular insulin sensitivity in high-fat diet insulin resistant mice"*
15h45 - 16h00	**Marc-Etienne Roehrich** Cardiologie – CHUV	*"Immunophenotypical analysis of putative cardiac progenitor cells isolated based on high ALDH activity from adult mouse and human hearts"*
16h00 – 16h15	**Mohamed Nemir** Dpt de Médecine - CHUV	*"Control of cardiac integrity via the Notch1 receptor pathway".*