P2-351 HEALING GARDENS IN ALZHEIMER'S DISEASE: HOW TO BEST LEVERAGE SKILLS AND EXPERIENCE BETWEEN HEALTH AND LANDSCAPE PROFESSIONALS—THE NANCY EXPERIENCE

Therese Rivasseau Jonveaux[1], Fescharek Reinhard[2], Martine Batt[3], Alain Trognon[4], Soulon Laure[5], Demarche Laetitia[5], Christel Jacob[6], Alina Pop[5], Manon Yzoard[7], Malerba Gabriel[5], Bruno Bouvel[5], Athanase Benetos[8], *[1]CHU Nancy/Laboratoire InterPsy Pratiques Sociales Interactions, Vandoeuvre les Nancy, France; [2]Fescharek Sculpture and Design &CHU Nancy, Marburg Lahn, Germany; [3]Laboratoire InterPsy Pratiques Sociales Interaction EA 4432, Nancy, France; [4]Laboratoire InterPsy Pratiques Sociales et Interaction EA 4432, Nancy, France; [5]CHU Nancy, Nancy, France; [6]CHU Nancy/ Laboratoire InterPsy Pratiques Sociales Interaction, 1 Rue Foller, France; [7]Laboratoire Interpsy Pratiques Sociales Interaction EA 4432, Nancy, France; [8]CHU Nancy Université de Lorraine, Vandoeuvre les Nancy, France. Contact e-mail: therese.jonveaux@dbmail.com*

Background: The French Alzheimer Plan 2008-2012 foresees creation of healing gardens in new specialized care centers; however their implementation is still insufficient and behind schedule. We observe lack of utilisation of gardens in gerontology, and landscape architects expressing the need to get precise user requirements. The garden «art, mémoire et vie» in Nancy uses a concept based on neuropsychological and artistic principles and our approach complements a 5 years experience of care and research in this area. **Methods:** We suggest to create well structured multidisciplinary discussion platform to co-develop best practices. We established a set of methodological tools in the area of healing gardens in AD: pre and post occupancy evaluation of satisfaction and actual needs use of patients, visitors escorting patients health care professionals, systematic analysis of existing green space or garden. **Results:** In light of different needs, 2 different programs have been put in place - A program designed for professionals working in gerontology with the objective to explain the scientific and empiric foundation as well as the potential benefits of healing gardens if well integrated in a holistic concept of care. - A program for landscape architects to educate them about AD, symptoms and needs of Alzheimer patients and design principles resulting thereof. Continuous improvement of these programs by systematic evaluation of expectations and feedback is underway. **Conclusions:** Integrating healing gardens in the concept of care of Alzheimer patients have the potential to improve cognitive rehabilitation and play an important role in dealing with psycho behavioural disorders. To promote this still underused concept, a well planned structured cooperation between health professionals and landscape architects needs to be established based on a common ground of principles and methods in order to optimize creation and use of such gardens to the best benefit of Alzheimer's patients.

P2-352 MULTIPLE DEATHS OF FIRST-DEGREE RELATIVES DURING CHILDHOOD PREDICTS INFLAMMATION IN LATE-LIFE: A FACTOR RELATED TO ALZHEIMER'S DISEASE RISK

Maria Norton[1], Ronald Munger[1], JoAnn Tschanz[1], Christopher Corcoran[1], Ken Smith[2], *[1]Utah State University, Logan, Utah, United States; [2]University of Utah, Salt Lake City, Utah, United States. Contact e-mail: maria.norton@usu.edu*

Background: We have previously reported higher risk for Alzheimer's disease in persons who experienced early parental death during childhood. One potential mechanism is the inflammatory response to psychological distress, which has been shown to promote chronic diseases of aging. C-reactive protein (CRP) is a commonly used marker of inflammation, with higher levels associated with greater depression and coronary artery disease risk, which in turn, are risk factors for Alzheimer's disease. **Methods:** We examined the association between total family deaths in childhood "FDC" (parents, siblings, spouses and offspring) during an individual's first 18 years of life, derived through examination of objective records, and late-life CRP level. Participants were 2,176 subjects (58% female) with Mean/SD age of 72.8/5.7 years, from the Cache County Memory Study. CRP level was dichotomized into above (n=205) vs. below 10 mg/L (n=1973), a clinically meaningful threshold indicative of inflammatory disease. **Results:** In a logistic regression model, each additional FDC death was associated with a 26% higher risk of high CRP level (OR=1.26, p=0.02), controlling for age, gender, education and presence of at least one e4 allele at APOE. When FDC was trichotomized into 0 (n=1,553) vs. 1 (n=476) vs. 2+ deaths (n=147), a single death was not related to high CRP risk (OR=1.03, p=0.884) however 2+ deaths doubled the risk (OR=2.02, p=0.004). **Conclusions:** Whereas children appear to be generally resilient to a single FDC loss, the effects of exposure to multiple FDC trauma during this critical developmental period is manifest decades later in heightened inflammatory level. Findings suggest that inflammation may be one mechanism for the effect of childhood psychological stress on AD risk. Further longitudinal analyses should examine whether FDC effects on inflammation are compounded by experience of additional psychosocial stressors in mid- and late-life, and whether such exposures are also predictive of AD and mortality risks later in life.

P2-353 IMPROVING FATIGUE-RELATED DRIVING: DIFFERENCES FOR HEALTHY OLDER ADULTS AND THOSE WITH MCI

Woojin Song[1], Carol Persad[1], Pooja Pandit[1], Laura Michalski[2], Alice Doong[1], Carol Cline[1], Bruno Giordani[1], *[1]University of Michigan, Ann Arbor, Michigan, United States; [2]New Oakland Child-Adolescent and Family Center, Livonia, Michigan, United States. Contact e-mail: woojins@umich.edu*

Background: Performing an alertness maintenance task (AMT) while driving improves performance in fatigued young drivers (Oron-Giland et al., 2008), suggesting that AMT's may be a useful safety tool for driving. We have previously shown that healthy older adult drivers are minimally affected by fatigue and show little change in their driving with AMT. However, little is known regarding how an AMT would impact older individuals with cognitive impairment. The current study compares the effects of an AMT on the fatigue level and driving performances of older adults with and without MCI. **Methods:** Thirty-four healthy adults and 17 adults with MCI aged 55 or older currently driving and with a valid driver's license participated. Computerized driving scenarios were presented on a 45" flat screen monitor using STISIM software. After a 50-minute drive designed to illicit fatigue, measures of lane position, speed, variability, driving errors and fatigue ratings were collected either under single (driving only) or dual task conditions (AMT and driving) presented in an A-B-A-B design. The AMT trivia task consisted of questions from categories chosen by participants. **Results:** Fatigue ratings were equivalent between the two groups. With AMT, both groups reported less fatigue and showed decreased driving speed. However, even at the outset of the study when subjects were not fatigued, adults with MCI demonstrated greater variability in speed and more driving errors than healthy adults. After the 50-minute drive, the MCI group showed more effects of fatigue compared to the healthy group, as reflected in reduced speed, increased variability in speed and lane position and more errors. Comparing performance of the single to dual task conditions, the MCI group demonstrated more variability in lane position during the AMT condition. **Conclusions:** Although both the healthy and MCI groups report less fatigue during AMT, the healthy older adults demonstrate relatively steady driving performance regardless of fatigue or dual task condition (AMT). In contrast, driving difficulty when fatigued appeared to be accentuated in the adults with MCI, and particularly in conditions meant to improve alertness (i.e. AMT). New advances in automotive technology and safety may require particular attention to levels of cognitive impairment among older drivers.