

D6.5 Lifebrain conference in Berlin

Project title: Healthy minds from 0-100 years: Optimising the

use of European brain imaging cohorts

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Healthy minds from 0-100 years: Optimizing the use of European brain imaging cohorts

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Executive summary

The conference "Brain health across the lifespan" took place on November 6, 2019 at the Harnack Haus in Berlin with 144 participants from various backgrounds. The EU Horizon 2020 projects Lifebrain and Silver Santé Study (Medit-Aging) and the German Brain Council jointly organized the event.

Our conference covered the latest evidence from two major European research consortia, Lifebrain and Medit-Ageing regarding the impact of socioeconomic factors, physical activity, nutrition, and mental training on cognitive function, mental health, and well-being throughout life. These results were explored in light of prevention and intervention strategies for brain disorders.

The attendance of the conference was high and the evaluation of the conference by the participants was excellent.



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List of acronyms/ abbreviations

Lifebrain Healthy minds from 0-100 years: Optimising the use of European brain

imaging cohorts

CA Consortium Agreement

EB Executive Board

KMC Knowledge Management Committee

LCBC Centre for Lifespan Changes for Brain and Cognition, University of Oslo

LB Lifebrain

M Month

MPIB Max Planck Institute for Human Development

NIPH Norwegian Institute of Public Health

PI Principal Investigator

UiO University of Oslo

WP Work Package



1. Introduction

1.1. Deliverable description

Organization and completion of a conference.

1.2. Date and venue of the conference

The Brain health across the lifespan conference took place on November 6, 2019 with 144 participants from various professional backgrounds (out of 225 participants who registered for the conference). The EU Horizon 2020 projects Lifebrain and Silver Santé Study (Medit-Aging) and the German Brain Council jointly organized the event.

1.3. The conference organising committee

A conference organising committee was established in the autumn of 2018 to coordinate the organisation and the implementation of the conference consisting of the leaders of relevant work packages (WP1, WP5, WP6) and the local organising team (MPIB):

- Isabelle Budin Ljøsne (WP1 leader, NIPH)
- Andreas Brandmaier (MPIB)
- Sandra Düzel (MPIB)
- Helena Maravilla (MPIB)
- Christian A. Drevon (WP5 leader, Vitas)
- Barbara B. Friedman (UiO), administrative coordinator
- Mari Arnesen (UiO), administrative coordinator

As the conference was jointly organised by the Medit-Ageing consortium and the German Brain Council, their representatives have also taken significant part in the organisational work:

- Olga Klemecki (Medit-Ageing consortium)
- Gaël Chételat (Medit-Ageing consortium)
- Charlotte Reid (Medit-Ageing consortium)
- Professor Alfons Schnitzler (German Brain Council)

The conference preparation was executed mostly via regular video-chat conferences, in which joint strategic decisions were made and duties were equally distributed across all involved sites.



2. Implementation of the "Brain health across the lifespan" conference in Berlin

2.1. Themes and speakers of the conference

The conference covered the latest experimental approaches and evidences from two major European research consortia, Lifebrain and Medit-Ageing regarding the impact of education, physical activity, nutrition, and mental training on cognitive function, mental health, well-being, and brain measures throughout life. These results were explored in light of prevention and intervention strategies for brain disorders.

The conference gathered European speakers from different research areas including psychology, neurology, neuroimaging, psychiatry, genetics, and molecular biology. In their keynote lectures, Ulman Lindenberger introduced the concept of cognitive aging and explained how it generalizes across cognitive domains and educational backgrounds, whereas Gaël Chételat touched upon different possibilities to intervene the cognitive aging process. Lars Nyberg, in his talk, identified a number of risk factors as, for example, physical inactivity and loneliness that seem to accelerate cognitive decline. Gerd Kempermann stressed that in addition to these known risk factors, epigenetic factors also contribute to the different trajectories of aging. He presented research showing that when keeping the genes and environment identical in mice, the individual mouse still develops differently. Natalie Marchant explained how older people and especially those who are worried about their cognitive abilities might benefit from meditation. Peter Falkai demonstrated how knowledge obtained from animal research and research on aging can be used to understand human mental illnesses, for example, how patients with schizophrenia may benefit from regular physical activity. Simone Kühn provided evidence that younger brains can be shaped by training. In the study she presented, young participants played video games and eventually showed volume changes in task relevant regions. Emrah Düzel demonstrated that the presence or absence of blood vessels in the human brain might influence the effectiveness of an intervention. His talk was followed by an introduction to different types of meditation training by Anotoine Lutz. In combination, these meditation practices may reduce the risk of dementia. Agnes Flöel showed that non-invasive brain stimulation might also be effective in improving memory performance. Isabelle Budin-Ljøsne presented results from a Lifebrain interview study conducted among brain research participants indicating that many people do not think about their brain health but would like to know more about brain health. She also introduced the Global Brain Health Survey led by Lifebrain. Alfons Schnitzler presented the amount of money spend on treating brain disorders worldwide, where ultimately prevention might have precluded the treatment and significantly reduced the costs to the healthcare system. The conference ended with a panel discussion on brain health promotion across the lifespan with the key message that there is a need to communicate risk factors to a broader



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public but that there is no one-fits-all intervention. Rather, it seems that people need to individually find mentally and/or physically engaging and enjoyable activities in order to ensure consistency. These are probably most effective in offsetting the age-related decrements that we currently observe in European populations. The complete program including session and talk titles can be found in Table 1.

Table 1: Complete conference program

09.00 – 09.20	Welcome by Organisers Ulman Lindenberger, Berlin host (Max Planck Institute for Human Development & Max Planck UCL Centre for Computational Psychiatry and Ageing Research) Kristine Walhovd (University of Oslo, Lifebrain), Olga Klimecki (University of Geneva, Silver Santé Study), and Alfons Schnitzler (German Brain Council)
Session 1:	HOW TO PROMOTE BRAIN HEALTH ACROSS THE LIFESPAN SESSION CHAIR: Enikő Zsoldos (Lifebrain)
09.20 – 09.50	KEYNOTE: Cognitive ageing: A lifespan perspective Ulman Lindenberger
09.50 – 10.20	KEYNOTE: Promoting healthy brain ageing: What do we know and where are we going? Example from the large European project Silver Santé Study Gaël Chételat, INSERM, University of Caen, Silver Santé Study
10.20 – 10.35	Discussion in plenum
10.35 – 11.05	Coffee break
10.35 – 11.05 Session 2:	RISK FACTORS AND BRAIN HEALTH SESSION CHAIR: Sana Suri and Rogier Kievit (Lifebrain)
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	HEALTH SESSION CHAIR: Miranka Wirth (Silver Santé Study)
13.40 – 14.00	Does video gaming affect the brain? Simone Kühn, Max Planck Institute for Human Development, Lifebrain / Department of Psychiatry and Psychotherapy, University Clinic, Hamburg-Eppendorf
14.00 – 14.20	Episodic memory in pre-clinical Alzheimer's disease Emrah Düzel, German Center for Neurogenerative Diseases, Magdeburg
14.20 – 14.40	Meditation-based interventions in the elderly Antoine Lutz, INSERM, Lyon, Silver Santé Study
14.40 – 15.00	Cognitive training and non-invasive brain stimulation in ageing and neurodegenerative disease Agnes Flöel, Charité – Medical University Berlin
15.00 – 15.15	Discussion in plenum
15.15 – 15.45	Coffee break
Session 4:	PANEL: Brain health promotion across the lifespan SESSION CHAIR: Kristine Walhovd
15.45 – 15.55	Are people ready for personalised brain health? Isabelle Budin-Ljøsne, Norwegian Institute of Public Health, Lifebrain
15.55 – 16.05	Burden and challenges of brain disorders Alfons Schnitzler, German Brain Council & University of Düsseldorf
16.05 – 16.45	INVITED PANEL MEMBERS: Gaël Chételat, Peter Falkai, Gerd Kempermann, Ulman Lindenberger, Alfons Schnitzler, Miranka Wirth
16.45	Adjourn

2.2. Participants of the conference

Participants were mostly researchers and healthcare professionals with an interest in cognitive and mental health, representatives from patient groups and professional societies, patients, as well as the general public was present with an interest in brain health.

2.3. Publicity of the conference

The programme of the conference was available on the websites of <u>Lifebrain</u> and the other organisers already from April 2019 and promoted through the social media, press releases and



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professional emailing lists. Pictures from the event have been published on the <u>Lifebrain</u> <u>Facebook page</u>.

2.4. Evaluation of the conference

After the conference, 49 participants completed our evaluation forms. In line with the verbal and informal feedback we received on the day, those who attended the conference found it useful, interesting and well-organized. For 100 % of participants, the conference met their expectations and they rated the organisation of the day as either "good" or "excellent". 98 % rated their overall experience at the conference as well as the scientific content as "good" or "excellent", with participants rating some sessions as being slightly too specific, i.e. less relevant for a broad audience. Condensed results are depicted in Figure 1. Common themes for improvements included a general introduction of Lifebrain, Silver Sante and the German Brain Council, and on the other hand more interactive sessions via e.g. poster sessions. 47 out of 49 respondents said they would be interested in attending a future event organised by these projects.

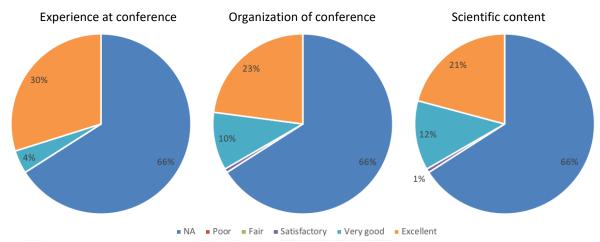


Figure 1: Selected results from evaluation analysis

3. Conclusion

The "Brain health across the lifespan" conference provided an excellent, fruitful, and stimulating environment for researchers and healthcare professionals with an interest in cognitive and mental health, gathering renowned speakers in their field. As a direct measure of our success, we take the 100% of the survey respondents who responded that the conference met their expectations and the 96% of respondents that they would attend future events again.