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# ADDIT-CE

## Alzheimer's Disease Diagnostics Innovation and Translation to Clinical Practice in Central Europe

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# ADDIT-CE

### D6.2 Interim Training and CDE Report and Plan

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## 1. Executive summary

Deliverable *D6.2 Interim Training and CDE Report and Plan* presents an interim report and a plan for training activities as part of WP6: Creating a Culture of Innovation, along with an updated information about communication, dissemination, and exploitation (CDE) activities. The deliverable is structured into two chapters, each focusing on a key aspect of this work package.

The first chapter outlines the training activities carried out during the first half of the project and provides a plan for the upcoming years. It builds upon the foundations established in *Deliverable 6.1: Initial Training Plan* and incorporates insights from the first *Periodic Report*.

The second chapter focuses on CDE activities, which are continuously updated on the Participant Portal. Relevant events and updates are also published on the project website and shared through partners' social media channels to maximize outreach and engagement.

This deliverable serves as a strategic guide to fostering innovation, enhancing professional skills, and ensuring the effective communication, dissemination, and exploitation of project outcomes.

## 2. Training activities

### 2.1 T6.1 – Enriching the expertise and know-how

Direct access to the expertise of collaborating academic institutions, reinforcing the contacts, and sharing knowledge is ensured by several activities covered within this task.

#### **Invited lectures**

During the project, we successfully organized five invited lectures, as detailed in the table below, with additional sessions planned for the future. These lectures are often integrated into the regular meetings of the participating research groups, providing a structured platform for knowledge sharing. Initially focused on MU and NII SAS, the initiative has expanded to include BMC SAS, Geneton and FNUSA/ICRC. This expansion has broadened the reach and impact of the lectures, fostering deeper collaboration and ensuring a wider dissemination of expertise.

The sessions have facilitated in-depth discussions, introduced innovative methodologies, and promoted the exchange of expertise across disciplines. Feedback from participants highlights the added value of these lectures in strengthening collaborative ties and inspiring new research ideas. The topics of the lectures are selected based on the current needs and ongoing results of the project, ensuring their relevance and practical application. Moving forward, we aim to continue utilizing this format to enhance the scientific impact of the project and maintain momentum in inter-institutional cooperation.



Img. 1: Invited lecture: Jozef Hritz (with Rostislav Škrabana) at NII SAS



Img. 2: Invited lecture: Tomáš Sládeček at MU

Invited lecture speaker	Institution	Topic	Hosted by	Status/ Date
Dáša Boháčiková	MU	Cerebral Organoids as a Model for Studying Alzheimer's Disease and Other Neurological Disorders	BMC SAS	Delivered / 13 FEB 2024
Ondrej Cehlár	NII SAS	Research on conformational preferences of the naturally disordered tau protein	MU	Delivered / 6 MAY 2024
Madhumalar Subramanian	MU	Structural and biophysical characterization of apolipoprotein E nanodiscs	NII SAS	Delivered / 16 MAY 2024
Tomáš Sládeček	GENETON	From CNVs to NarCoS and finally back to Liquid Biopsy	MU	Delivered / 27 MAY 2024
Jozef Hritz	MU	The 14-3-3 Protein Family: Implications for Neurobiochemistry and Neurodegeneration	NII SAS	Delivered / 26 NOV 2024
Andrej Kováč	NII SAS	TBA	MU	Planned / JAN 2025
Kateřina Sheardová	FNUSA/ ICRC	TBA	BMC SAS	Planned / FEB 2025

Tab. 1: Invited lectures overview

## PhD theses supervision

PIs from MU and NII SAS are involved in the supervision of PhD theses elaborated under the project, in the position of consultants, opponents, or they are members of the thesis assessment and exams. The first students who benefited from this collaboration already defended their PhD thesis. The fruitful cooperation currently involves four students and will be continued similarly within the whole duration of the project and beyond.



Img. 1: Subhash Narasimhan and Jozef Hritz

Student	Institution	Topic	Supervisor	Opponent/ Consultant/ Member of the assessment committee
Krishnendu Bera	MU	Computational predictions of protein conformational changes and their interaction properties possibly relevant in neurodegenerative diseases – <b>successfully defended on April 30<sup>th</sup> 2024</b>	Jozef Hritz (MU)	Ondrej Cehlár (NII SAS), participated also in the dissertation thesis defence
Subhash Narasimhan	MU	Structural Characterization of Proteins Interacting with Intrinsically Disordered Mycobacterial Transcription Initiation Factor Sigma-A and Microtubule Binding Protein 2c – <b>successfully defended on August 7<sup>th</sup> 2024</b>	Lukáš Žídek (MU)	Rostislav Škrabana (NII SAS)
Jitka Plucarová	MU	Interactions of Microtubule Associated Protein 2c – <b>successfully defended on November 25<sup>th</sup> 2024</b>	Lukáš Žídek (MU)	Rostislav Škrabana (NII SAS)
Stefana Njemoga	NII SAS	Design of molecules preventing the pathological conversion of tau protein occurring in the pathogenesis of Alzheimer's disease	Ondrej Cehlár (NII SAS)	Jozef Hritz (MU)
Adam Polák	NII SAS	Regulation of protein amyloid formation by small ordered motifs	Rostislav Škrabana (NII SAS)	Lukáš Žídek/Jozef Hritz (MU)
Muhammad Khalid Muhammad	NII SAS	Mitochondrial dysfunction in tau neurodegeneration	Tomáš Smolek (NII SAS)	Hana Nedožrálová (MU)
Katarína Martonová	NII SAS	The role of small structured motifs in physiology of disordered proteins	Rostislav Škrabana (NII SAS)	Lukáš Žídek/Jozef Hritz (MU)

Tab. 2: PhD thesis supervision overview

In addition to the planned activities between NII SAS and MU, PhD student involvement has expanded since September 2024 to include collaborations with BMC SAS and the LIBRA-Net and LIBRA-Remind lifestyle intervention studies within the ADDIT CE framework. Two PhD students are supervised by Barbara Ukropcová (BMC SAS), contributing directly to these initiatives.

- MSc. Petra Dubajová: Mechanisms of the integrative adaptive response to exercise: physical activity in the prevention and treatment of neurodegenerative and metabolic diseases.
- MSc. Boris Prekop: The impact of a complex lifestyle intervention on the cognitive performance in the elderly with Mild Cognitive Impairment.

This unplanned expansion highlights the project's ability to create valuable synergies and further its impact in meaningful ways.

### Hands-on trainings

We have successfully carried out practical learning activities, which have been reported in the relevant section of the *Periodic report*. The next session of these hands-on trainings will take place in January 2025, which will again include both laboratory training and bioinformatics data analysis, this time focusing primarily on the analysis of NGS sequencing data and the statistical evaluation and processing of the results obtained. The training received positive feedback from participants, indicating that students find it both engaging and beneficial. Given these encouraging results, we will continue with this initiative as planned.

## 2.2 T6.2 – Industrial PhDs

On the Czech side, two PhD students—Aneta Kozeleková, supervised by Jozef Hritz, and Linda Kašiarová, supervised by Martin Marek—have been recruited into joint doctoral projects with the industrial partner BioVendor. Originally, Aneta Vašková was nominated from Martin Marek's group, but she left the program for personal reasons. Given the program's appeal, it was easy to find another highly qualified candidate to take her place.

The preparation of the partnership agreement between the Faculty of Science at Masaryk University, BioVendor, and the PhD students required long-term negotiations with both Faculty and University management. This agreement formally enables the co-supervision of dissertation theses in collaboration with a business partner, a practice that had not been common before the ADDIT-CE project. The innovative and far-reaching nature of the program demonstrated its value, leading to the agreement being negotiated not just at the project level but also at the Rector's Office. As a result, the joint PhD study framework with industry will now be made available to all faculties of Masaryk University.

Under this agreement, the selected PhD students are expected to spend a significant part of their project work in the industrial environment of BioVendor, under the supervision of Dr. Martina Hložánková, who has extensive



*Img. 2: PhD student Aneta Kozeleková at BioVendor*

experience in connecting industry and academia through the BioVendor Academy Programme. There is clear interest from all parties to continue the BioVendor Industrial PhD program even after the ADDIT-CE project concludes.

On the Slovak side, Lydia Lukyová is part of the PhD programme and continues her doctoral studies at the Faculty of Natural Sciences of Comenius University (CU) under the supervision of Tomáš Szemes (CU). At the same time, a significant part of her work is carried out in the company Geneton under the guidance of Tatiana Sedláčková. Lydia's focus on AD and novel biomarker research aligns closely with the objectives and scope of the ADDIT-CE project. At Geneton, Lydia is primarily involved in NGS analyses of samples from patients with neurodegenerative diseases, preparation and testing of new procedures and analysis of the obtained results. In addition, she is exploring the utility of circulating cell-free DNA in Alzheimer patients and control group using low-pass WGS analysis and machine-learning methods.

Establishing an industrial PhD between the private company MultiplexDX and their academic partner, NII SAS, was met with more obstacles than initially envisioned. The Slovak system for PhD enrolment mandates that the supervisor is actively employed by a local university. That created uncertainty for both the student and the official supervisor regarding responsibilities. MultiplexDX could not directly select a supervisor from their

ranks, but only informal agreements could be relied upon. This situation was further complicated by NII SAS's non-university status, which prevents them from acting as the official supervisor.

Despite these issues, MultiplexDX found a candidate willing to enroll in the industrial PhD program in September 2025. A new candidate, Ms. Sarah Anne Barnes, was identified among its employees. Subsequently, we have been negotiating rules of collaboration and PhD topics with partners from SAS and contacted the would-be official supervisor at the Faculty of Medicine Comenius University Bratislava.

Despite the obstacles identified in modus operandi, we are confident we will find a solution that fulfils the consortium's goals for industrial PhD student enrolment in Slovakia.

Ind. PhD Student's Name	Topic	Academic supervisor	Business supervisor
Aneta Kozeleková	Characterization of structure and interactions of proteins involved in neurodegenerative diseases	Jozef Hritz (MU)	Martina Hložánková (BioVendor)
Linda Kašiarová	Engineering and characterization of protein-based thrombolytics	Martin Marek (MU)	Martina Hložánková (BioVendor)
Lýdia Lukyová	Genetic features of Alzheimer's disease and cell-free DNA markers research.	Tomáš Szemes (CU)	Tatiana Sedláčková (Geneton)
Sarah Anne Barnes	TBA		

Tab. 3: Industrial PhD Programme overview

### 2.3 T6.3 – Soft Skills Training Program

MultiplexDX, in November 2024, organized another two workshops in the Soft Skills program.

The second workshop, "**2nd Soft Skills Workshop: How to effectively communicate the results of R&Ds to the professionals and public,**" was organized in the soft skills program on November 18th from 10:00 AM (online).

Speaker: Peter Marčan, PR consultant MultiplexDX, agency ReputationN

This workshop aimed to develop researchers' communication skills, emphasizing effectively presenting their research results to the professional public and a wider audience. Participants gained valuable knowledge on strategically setting up and implementing communications through various media and social networks. In addition, they learned how to build relationships outside the academic community effectively. During the workshop, Peter Marčan shared practical experience and useful tips on how to present and disseminate scientific knowledge successfully.

Workshop participants learned more about:

- How to properly set up a project's communication strategy
- The importance of a clear message: How to adapt communication to different types of audiences
- Media versus social networks: Which channels are suitable for different types of communication
- What makes communication interesting and what to avoid



Img. 3: Soft skills workshop invitation

Attendance: 42 participants (36 online/ 6 offline)

The third workshop organized within the Soft Skills program, "**3rd Soft Skills Workshop: How to use LinkedIn for R&D communication? How to manage crisis communication?**" took place on November 21st at 10:00 AM (online).

Speaker: Peter Marčan, PR consultant MultiplexDX, agency ReputationN

This workshop aimed to develop researchers' communication skills, emphasizing effectively presenting their research results to the professional public and a wider audience. Participants gained valuable skills in using LinkedIn to disseminate scientific knowledge. During the workshop, Peter Marčan shared practical experience and useful tips on how to present and disseminate scientific knowledge successfully. He shared experiences from crisis communication of scientific knowledge, especially during the COVID-19 pandemic.



Img. 4: Soft skills workshop invitation

Workshop participants learned more about:

- Is LinkedIn for scientists
- Crisis communication in science
- Case studies

Attendance: 41 participants (31 online/ 10 offline)

MultiplexDX is preparing another two soft skills workshops focused on **Leadership skills & Career Guidance, and Time Management Strategies for Researchers**, which will take place in February or April 2025. The topic in discussion is **Project management: writing a research project proposal**, which will take place according to the relevant launched calls.



## 2.4 T6.5 – Thematic Summer School and Workshops

During the ADDIT-CE project so far, we have successfully organized four AD-workshops and one Summer School, with additional dates already scheduled:

Completed	Date	Planned	Date
AD-workshop 1	1-2 June 2023	AD-workshop 5	29-30 May 2025
Summer School 1	20-24 June 2023	AD-workshop 6	6-7 November 2025
AD-workshop 2	15-16 November 2023	AD-workshop 7	28-29 May 2026
AD-workshop 3	23-24 May 2024	Summer School 2	7-11 September 2026
AD-workshop 4	7-8 November 2024	AD-workshop 8	5-6 November 2026

Tab. 4: Thematic Summer School and Workshops overview

The workshops follow a well-established format, combining a full-day scientific program with a half-day project session. They offered high-quality lectures and created a platform for discussions on current trends in Alzheimer’s disease diagnosis and treatment. Approximately 50 participants attended each event, representing academia, industry, and healthcare professionals. Notably, three out of four workshops were hosted at our business partner BioVendor’s premises, which further strengthened collaboration and enabled participants from different fields—including academia, other business partners, and clinicians—to explore the facilities and establish valuable connections. At the most recent workshop, we invited an external speaker for the first time, which proved highly beneficial. Building on this success, we plan to include external speakers in future workshops. These events also strengthen collaboration within the consortium, foster dynamic discussions, and support effective planning and coordination of project activities.



Img. 5: Photos from the 4th AD-workshop at BioVendor

### 3. Communication, dissemination and exploitation activities

In line with the *Communication, Dissemination, and Exploitation (CDE) Plan*, we are actively pursuing our communication objectives, which include increasing awareness, fostering collaboration, disseminating results, communicating national plans, and building a positive reputation for the project. We utilize the channels outlined in the CDE plan, adapting them to the specific needs and circumstances of each situation to ensure maximum effectiveness. These activities are designed to engage the targeted groups identified in the plan, which include the scientific and research community, healthcare providers, patients and caregivers, business and industry, government and policymakers, and the general public.

We continuously update the Participant Portal with information on CDE activities, providing transparent reporting for the Research Executive Agency. Results of past activities, as well as plans for the coming years, are presented in the following subchapters, which cover the tasks T5.4 – *Communication Campaign Towards End-Users and Society*, T6.4 – *Dissemination of Results Towards Stakeholder Groups* and T6.6 – *Events Targeting the Broader Community*. These efforts reflect our commitment to maintaining an open and active communication strategy throughout the duration of the project and beyond.

#### 3.1 T5.4 – Communication campaign towards end-users and society

Our communication activities are aligned with our *CDE plan* as well as the *D5.3 Plan of Communication Campaign*, both of which were submitted on schedule and approved.

Two campaigns have been developed and are actively running, each tailored to a specific audience: one targeting general practitioners, healthcare workers, and social care professionals, and the other focusing on the general public, including at-risk populations, families of Alzheimer’s Disease (AD) patients, and related stakeholders.

**The campaign targeting professionals in health and social care** emphasizes active engagement through participation in established professional conferences. Notable events include the Prague Gerontology Days Conference in the Czech Republic and the Alzheimerforum Conference in Slovakia. Consortium members from BioVendor, NII SAS, FNUSA/ICRC, BMC SAS, and MultiplexDX actively participated in these conferences in 2023 and 2024, delivering impactful presentations and fostering valuable connections within the quadruple helix framework. The consortium plans to sustain this engagement in the coming years.

**The campaign aimed at the general public** involves an even broader spectrum of activities, as outlined in the *Plan of Communication Campaign*. To date, the consortium has implemented several initiatives, including:

- **Educational Support Programs and Training Sessions for Family Caregivers:** Conducted online, these sessions cater to both Czech and Slovak audiences, offering practical guidance and emotional support.

- **Development of Printed Materials:** To further support these campaigns, the consortium is currently preparing printed materials designed as valuable take-home resources. These materials will complement our communication efforts by providing concise, accessible information to the target audiences.
- **Media Coverage:** A cornerstone of our communication campaign is extensive media outreach. Consortium members have successfully captured the attention of television, radio, online platforms, and print media, achieving broad coverage that has been well-received. This aspect of our strategy was positively highlighted during the recent review meeting, affirming the effectiveness of our approach. We remain committed to maintaining and expanding this media presence.

To date, we have conducted **over 70 media activities**, including podcasts, media articles, TV and radio interviews, and social media posts. These efforts are continuously updated in the Participant Portal to ensure transparency and documentation of progress.

### 3.2 T6.4 – Dissemination of results towards stakeholder groups

The dissemination efforts undertaken within the ADDIT-CE project have been crucial in sharing the knowledge and outcomes generated by our research team. These efforts have primarily focused on active participation in 20 prominent conferences and the publication of nine scientific papers. Details of both activities are regularly updated in the "Dissemination Activities" and "Publications" sections of the Participant Portal.

To date, consortium members have published nine papers in high-impact journals, with four of them resulting from collaborative efforts between interdisciplinary teams across different departments and institutions. All these articles are freely available through Open Access, ensuring that our research is accessible to a broad audience, including scholars, practitioners, and the general public, without the barrier of subscription fees. The Open Access format significantly enhances the visibility and accessibility of our work, expanding its reach and maximizing its potential impact.

During the conferences, our team had the opportunity to engage personally with attendees, sharing knowledge about the project and its findings. These interactions fostered valuable discussions, facilitated the exchange of ideas, and allowed for the establishment of new contacts that could lead to future cooperation and collaboration. This direct engagement is a key component of our dissemination strategy, helping to further promote the project's objectives and broaden its impact.

This approach has proven to be both meaningful and effective, fulfilling the expectations outlined at the beginning of the project. By increasing visibility and encouraging active engagement within scientific and professional communities, these activities have made a significant contribution to the project's goals. Building on this success, we are committed to continuing these efforts in the future to ensure the long-term impact and sustainability of the project.

Scientific Conferences	Date
Active School International Conference (B. Ukropcová, BMC SAS)	III-23
XIX Discussions in Structural Molecular Biology (K. Bera, G. Kucinskas, MU)	III-23
Prague Protein Spring 2023 (K. Bera, MU)	V-23
AAIC 2023 (K. Sheardová ICRC, J. Ukropec BMC SAS)	VII-23
EBSA Congress 2023 (A. Kozeleková, MU)	VIII-23
Structural Biophysic of Biomolecular Complexes (L. Kašiarová, MU)	IX-23
Workshop on Bioinformatics and Computational Biology 2023 (J. Hritz, MU)	IX-23
ITAT Conference 2023 (T. Fellmeth, MU)	IX-23
EMBL Symposium 2023 (D. Boháčiková, MU)	X-23
59th Annual meeting of EASD (B. Ukropcová, BMC SAS)	X-23
36th Czech and Slovak Neurological Congress (K. Sheardová, ICRC)	XI-23
6th Mini-symposium on the Blood-Brain Barrier (NII SAS, MU)	III-24
AD/PD 2024 (D. Boháčiková, MU)	III-24
36th Global Conference of Alzheimer's Disease International (M. Vališ, ICRC)	IV-24
XXIIIrd Interdisciplinary Meeting of Young Life Scientists (S. Kadáková, MU)	V-24
34th European Crystallographic Meeting (M. Marek, MU)	VIII-24
Biophysical Society Meeting 2024 (T. Fellmeth, MU)	X-24
XXXIV. Izakovičov memoriál 2024 (T. Sedláčková, Geneton)	X-24
37th Czech-Slovak Neurological Congress (J. Horth, K. Sheardová, ICRC)	XI-24
XX Discussions in Structural Molecular Biology Conference (L. Kašiarová, MU)	XI-24
Japan Bioluminescence and Chemiluminescence Conference 2024 (M. Marek, MU)	XI-24
Other	Date
EU 13 Roadshow: Strengthening IP Awareness and Community Engagement in the Widening Countries (M. Hložánková, BioVendor, V. Štěpánková, IIC)	X-24
Coordinators' Day – Excellence Hubs & Teaming (P. Hlaváčková, J. Hritz, MU)	XI-24

Tab. 5: Dissemination events overview

### 3.3 T6.6 – Events Targeting the Broader Community

As mentioned in the first *Periodic Report*, we have successfully leveraged both established events and new opportunities to maximize the project's visibility and impact. These events play a crucial role in engaging the broader community and raising awareness about the project's goals and outcomes.

The most significant established events, in which we have participated and plan to continue engaging in the future, include the Memory Week organized by CALS, the Brain Awareness Week conference organized by SALS, and the Europe-wide Researcher's Night. These annual events target the general public, particularly those with an interest in topics related to Alzheimer's disease and brain health. They provide a platform for disseminating project findings, engaging with a wider audience, and fostering public understanding of scientific research. Our participation in these events helps to strengthen the project's connection to society and enhance its overall impact.

## 4. Conclusion

In conclusion, the ADDIT-CE project has made significant progress in advancing Alzheimer's Disease diagnostics and fostering a culture of innovation. Through organized invited lectures, hands-on training sessions, and PhD supervision, we have facilitated knowledge exchange and strengthened collaboration among academic and industrial partners. The establishment of industrial PhD programs with BioVendor has demonstrated the value of integrating academic research with industry experience.

Our communication and dissemination efforts have effectively increased the project's visibility. Participation in conferences, publication of scientific papers, and media engagement have helped raise awareness about Alzheimer's Disease and our work. Events like Memory Week and Brain Awareness Week have connected us with the broader community.

Looking ahead, we are committed to building on these achievements. We will continue to enhance our training programs, expand communication efforts, and foster collaborations to drive innovation and improve clinical practices in Central Europe. The dedication of our consortium members has laid a strong foundation, and we look forward to the continued impact of the ADDIT-CE project.