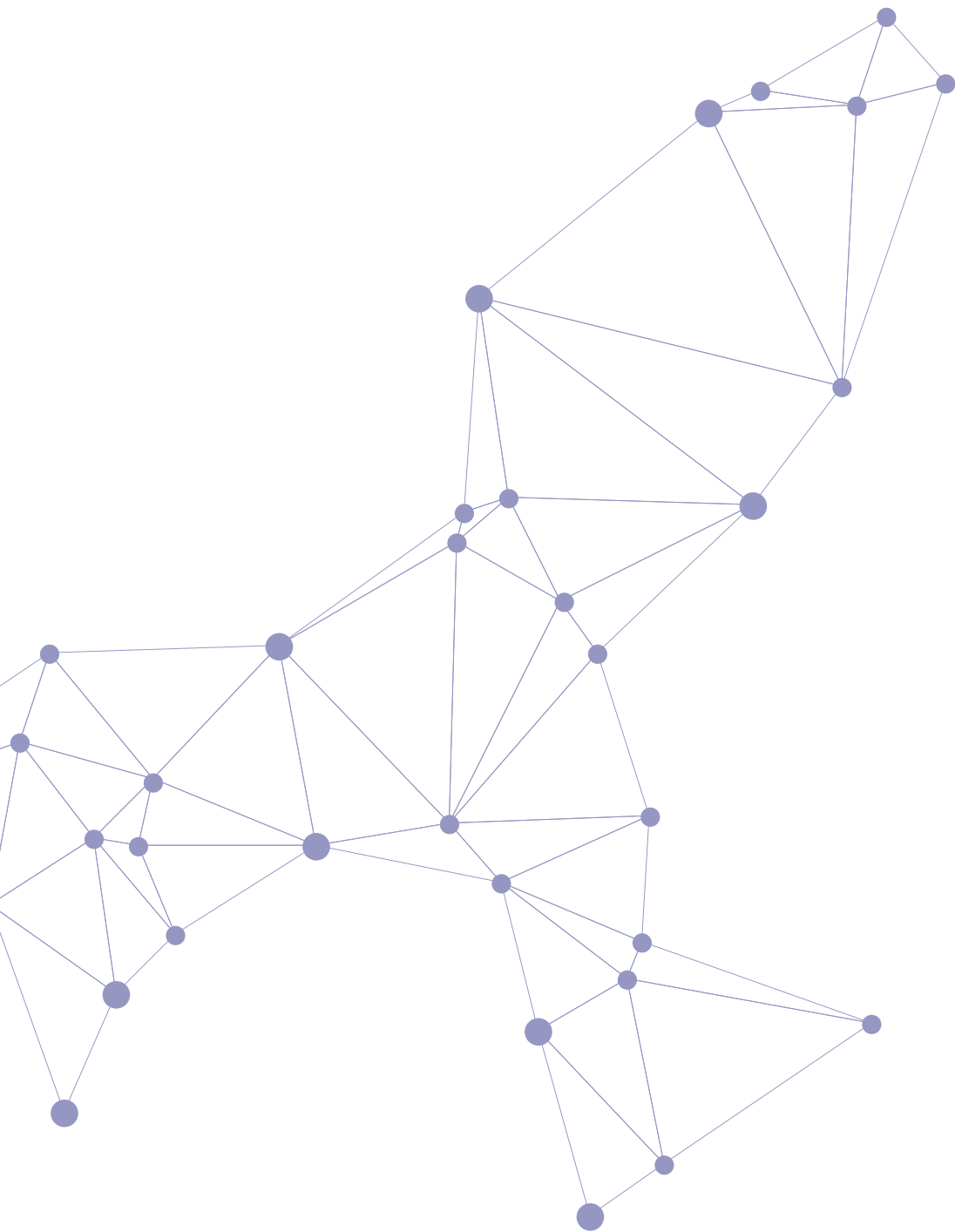


ReMuS[®]

MULTIPLE SCLEROSIS
PATIENT REGISTRY

ANNUAL REPORT 2020





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Welcome!



Jana Vojáčková, MSc., MBA
CEO of ReMuS Registry

Dear friends,

Year 2020 lead all of us through ways of which we did not know, in the previous years. It was a year full of challenges. But it was also a year when we had time to look in our inner self and set new priorities. To build again the imaginary house made of cards in another way and maybe even better than ever before.

Eighth year of ReMuS Registry was a year of both small and great technical, professional and personnel changes. We moved to new separate premises in Karlovo náměstí. We accepted a new statistician to our team. And we made considerable progress in our international co-operation with other significant Registries. We also moved to a new level the joint endeavor of ourselves, of doctors, and of nurses, from associated MS-Centres. Thanks to the newly tested MDS System we shall be able to collect data more efficiently, and in a superior quality than we did up to now.

Although we found ourselves as by a wave of a magic wand in a time of big and not always pleasant changes, some things remain unchanged. Only thanks to the areal, long-term, complete and repeatedly quality data can the research and real clinical practice provide actual and tangible results.

Thank you for being with us!

Yours

A handwritten signature in blue ink, which appears to be 'Jana Vojáčková'.

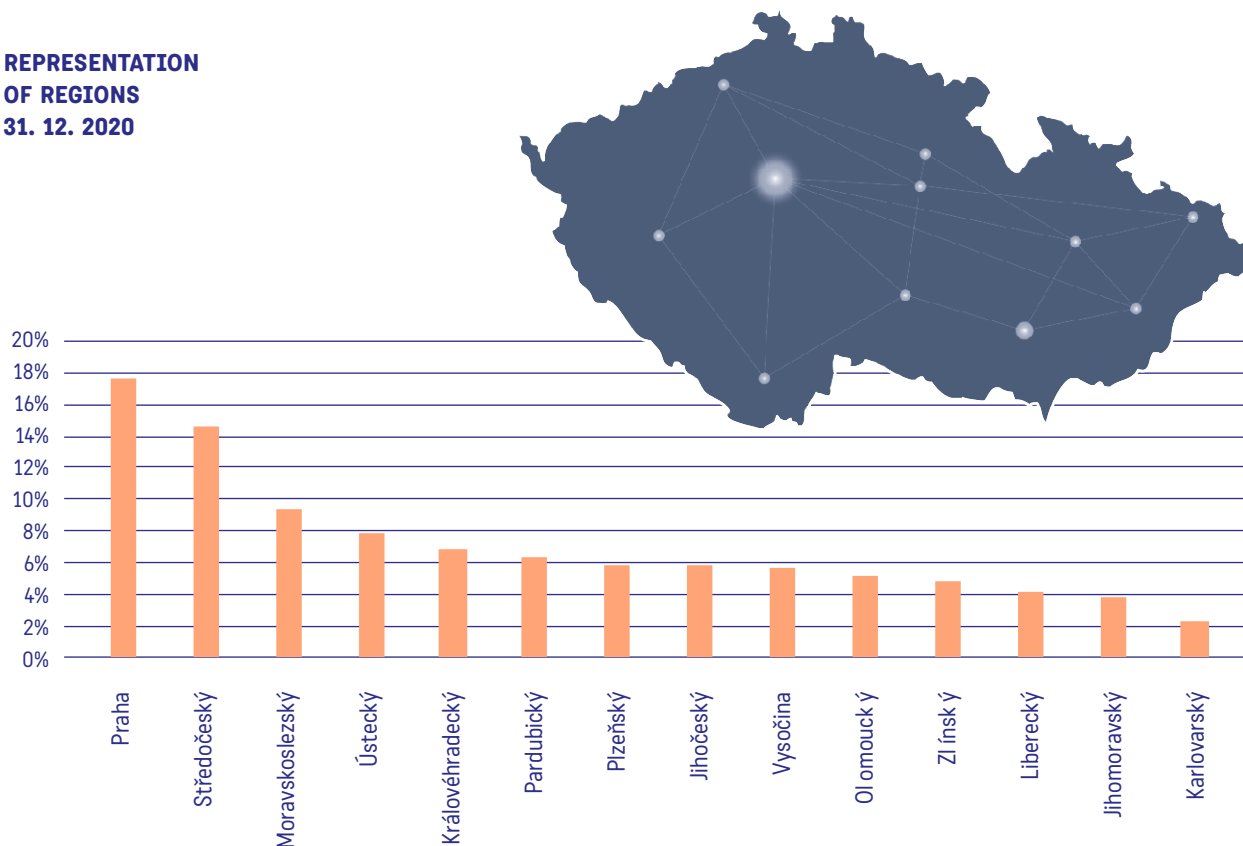
"We are the change we have been waiting for."
— Barack Obama

What Are We Dedicating Our Time to

To improve the quality of treatment of MS patients, it is necessary to heed especially on a right management of care for the sick. In order to do it, data from registration studies, data on safety and efficacy of treatment, demography, pregnancy, breast-feeding, ability to work, or mental health are needed. And in ReMuS Registry we are taking care for collecting such data from real clinical practice. Our building blocks are long-term, systematic flatness, completeness and repeated quality.

Apart from data collection, due controls, later analysis and preparation of outcomes, in close cooperation with individual Centers, we are trying, to also find new ways of collecting data in the most efficient way and with the least error rate possible. Therefore we are persistently improving internal systems, organize educational workshops for individual MS Centers, or introduce new techniques of data comparison.

REPRESENTATION OF REGIONS 31. 12. 2020



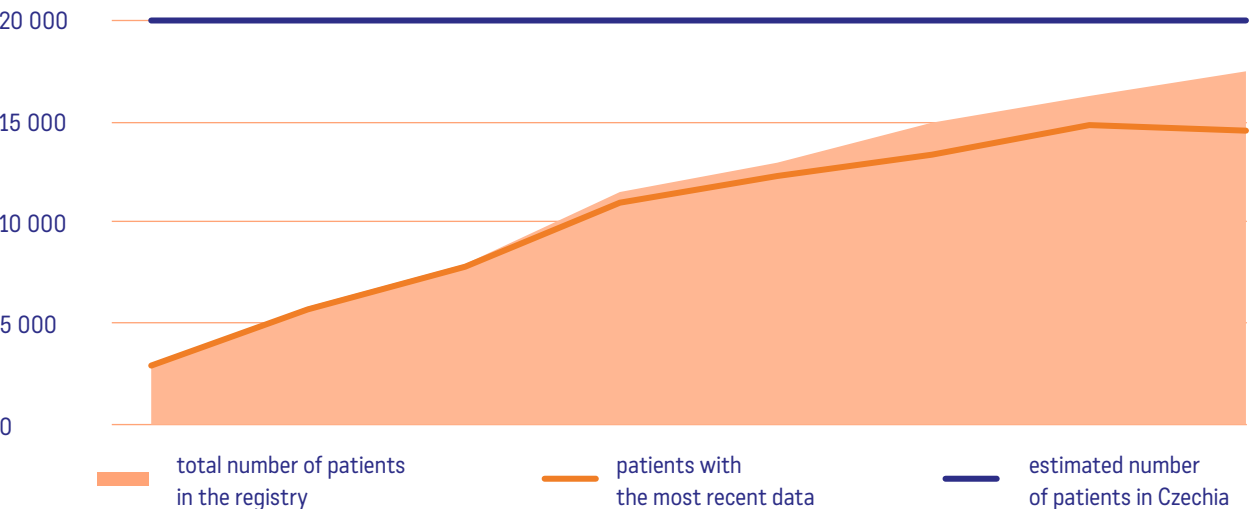
What Remains Unchanged

- Data Collection
- Quality Control of Data
- Data Analysis and Preparation of Outcomes

As Rome was not built in a day so, neither did we ranked among the best Registries in Europe over night. In 2013, the first data export took place in three Centers that were members of the Registry at that time – General University Hospital in Prague, Hospital Teplice and Hospital Jihlava. This export added up 2,920 patients. As time went by, another 12 MS Centers from all the Czech Republic, i.e. in all the 14 Czech regions joined (University Hospital in Motol, University Hospital in Pilsen, Regional Hospital Pardubice, University Hospital in Ostrava, University Hospital in Královské Vinohrady, Thomayer Hospital, University Hospital Hradec Králové; University Hospital Brno, University Hospital Olomouc, Hospital in České Budějovice, St. Anne’s University

Hospital in Brno, and T. Bata Regional Hospital in Zlín). Thanks to the thorough work of each and every MS Center the number of patients in the Registry is constantly increasing. In 2020 we have been collecting data of 17,485 patients out of 20–22.000 supposed ones.

NUMBER OF PATIENTS 2013–2020



Apart of careful preparation of outcome reports for the MS Centers once a year, we also prepare data for both commercial and academic sphere. In 2020, 6 extraordinary outcomes have been prepared.

The important journal *Neurology in Practice* published already a second article written by Assoc. Prof. Dana Horáková, MD, PhD. called "What kind of data offers ReMuS, the statewide Register of patients with Multiple Sclerosis?" In December, in an equally important expert journal *Frontiers in Neurology* was published the article "Comparison of Therapies in MS Patients After the First Demyelinating Event in Real Clinical Practice in the Czech Republic: Data From the National Registry ReMuS", by MUDr. Zbyšek Pavelka, Ph.D, et al. Both of these feats are evidence that information from our Registry serve greatly to the publication activity of doctors.

Our data go through a regular and constant quality control so that the Registry could boast of an adequate reliability of data. Thanks to a fourfold control we provide outcomes that contribute significantly to a deeper understanding of the disease in itself in many long-term or one-time, both Czech and foreign projects and studies.

SAFETY AND EFFICACY OF TREATMENT

In the field of multiple sclerosis, the Czech Republic is really exceptional concerning the speed in which the treatment sets on for the MS patients – according to the law, the treatment has to begin within 4 weeks after establishment of diagnosis. However, the choice of the right treatment, of course, bears a certain amount of responsibility on the side of doctors and today also on the side of patients. Every medication has both benefits and risks, and it is necessary to consider carefully both. In order to gain the most important information on adverse effects, we also joined monitoring of these risks. Now is the second year that the project TOPIK.CZ (Long-term surveillance of patients with multiple sclerosis to report progressive multifocal leukoencephalopathy and other serious opportunistic infections among patients treated with natalizumab) has been running. It is a three year precautionary study in the régime of ReMuS Registry (the so called PASS Study) whose aim is to map potential serious adverse effects in everyone who takes natalizumab, in the Czech Republic.

Apart from safety of treatment, we should not forget its efficacy – each of us reacts to different kinds of treatment in a different way. For someone the first preparation used is OK for many years. For others it is maybe the third following in succession. In the Registry, we are interested whether the treatment of concrete patients is successful from the point of view of real clinical practice. With this issue deals e.g. the three year epidemiological study "Czech pharmaco – epidemiological real word data study focused on effectiveness of different disease modifying drugs"



How Do We Change the MS World

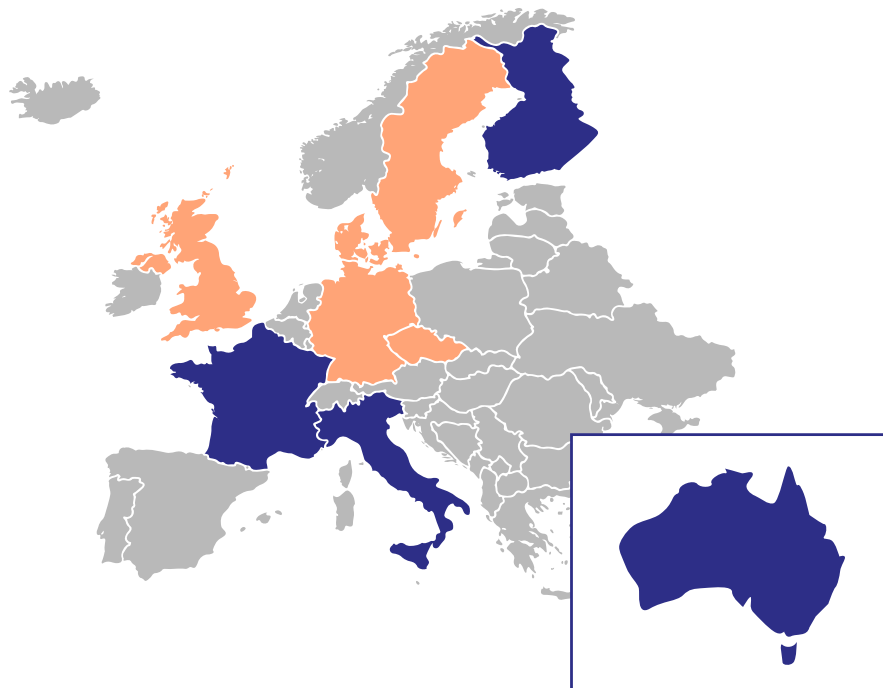
INTERCONNECTION WITH ABROAD

THE BIG MULTIPLE SCLEROSIS DATA NETWORK, IN SHORT BMSD A RCN OR RESEARCH COLLABORATION NETWORK

In 2020 ReMuS Registry managed gradually to deepen its co-operation with significant Registries in Europe and in the world which are associated in informal group BMSD, whose main long-term goal is the improvement of life of patients with MS through a quality collection of long-term data.

Besides this group, ReMuS Registry joined also the Research Collaboration Network (RCN), which unites nine world Registries including International MSBase that is located in Melbourne, Australia. Coordination center detecting individual projects is the Swedish Karolinska Institutet, known e.g. for awarding Nobel prizes. In the first two phases of the project of research of secondary progressive form of multiple sclerosis joined five

RNC Registries— British, Czech, Danish, German and Swedish. The main goal of this project was to verify and recommend through the data from real clinical practice the appropriateness of different methods for diagnostics of secondary progression of MS. We are glad that we could contribute to this project with the second largest volume of data in 2020. Key findings of the first phase have been part of the presentation on international congress ACTRIMS–ECTRIMS 2020 report of which we bring hereunder.



CLARION

In our 2019 report we already mentioned the study CLARION as we were opening first discussions about participation in this project. In 2020, we laid foundation for Czech participation and went through an introductory phase which primarily aimed to assessing the qualitative aspects of ReMuS Registry and meeting rigorous demands of European Medicines Agency and license holder on Registries involved. In November 2020 ended up a few months lasting activities with a positive statement of recommendation for participation of ReMuS Registry in this study.

NMOSD REDi

Neuromyelitis Optica Spectrum Disorder (NMOSD), or Devic's disease, is a demyelinating disease which has some common features with MS. Therefore, it is possible that a patient could be first diagnosed as having multiple sclerosis but later his diagnosis is changed to NMOSD. In ReMuS Registry we have not built in methods of a systematic data collection on treatment of patients with this diagnosis. Therefore, we decided to change this situation with the project NMOSD ReDi, the last four letters of which refer right on Registry and Digitalization of these data. Thanks to the project, the foundation of which we laid in 2020, it will be possible to realize equally quality data analysis of many tenth of patients with this extraordinary unsearchable disease as by patients with multiple sclerosis. We expect first results by the end of 2021.

BENCHMARKING

We put particularly great emphasis on quality of data collection, as each of the fifteen MS Centers involved in the Registry can testify. All the data from all the MS Centers go through a regular up to four stage control, twice a year. However, there are some areas of the Registry where it is not possible to identify the problem just from the data record. In 2020, therefore, we laid the foundation of benchmarking centers e.g. in the areas of relapses or pregnancy. Thanks to the benchmarking it is possible to recognize unexpected shifts in data of individual centres and find the potential problem concerning the integrity of data. In this way, we can provide the MS Centers an even more valuable feedback than before. So we follow up the initial achievements because areas requiring special treatment are increasing in number.

MULTIPLE TOGETHER

In cooperation with local branch organizations of the patients' organization ROSKA the team of ReMuS Registry prepares a project called "Multiple together". Its aim is to invite to cooperation with ReMuS Registry those patients who are not treated in MS Centers. In the future, outcomes of the project could help to provide access to new types of complex treatment to patients for whom none of the modern therapies was applicable until recently. We are expecting the first results of the project by the end of 2021.

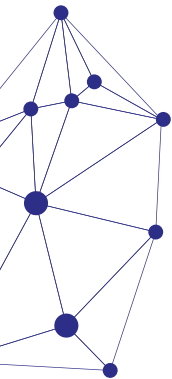


KEY MOMENTS OF 2020

EDUCATIONAL WORKSHOP OF REMUS REGISTRY JANUARY 15, 2020, PRAGUE

In January 2020, the first of a series of educational workshops of ReMuS Registry for professional public took place. Jana Vojáčková, MSc., MBA, and Assoc. Prof. Dana Horáková, MD, PhD., arranged for the workshop to happen. The Registry has been discussed especially from the point of view of its overall importance for patients with MS and for professional and medical community. Also the benefits of a broad application of the Registry with the possibility of utilizing data not only in the Czech Republic were emphasized.





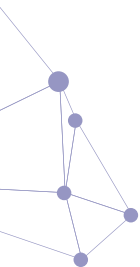
THE BIG MULTIPLE SCLEROSIS DATA NETWORK WORKING APPOINTMENT FEBRUARY 12–14, 2020, LYON, FRANCE

The activity of the group (The Big Multiple Sclerosis Data Network) started with national registries of Sweden, France, Denmark, Italy and the international database MS Base. Thanks to the high quality work of all involved in the running of ReMuS Registry, the group BMSD includes also Registry of the Czech Republic now. This informal group of high quality MS Registries allows common analyses of a big number of clinical data. Total number of patients in this group exceeds 200,000.

February meeting in Lyon, France, was marked by an intensive cooperation of all registries, improvement of common work with data and harmonization of rules for data interpretation.

Within two days, negotiations of data managers from all the countries involved, and also their meeting with the controlling committee took place. They discussed the planned and already running safety studies and HORIZON 2020, an extraordinary interesting project within a grant program of the European Union. This international project EuCoMS which focuses on data collection of associated diseases and interconnection with other national medical databases could move the research of MS treatment even further in the future.

Conclusion of the meeting consisted in negotiations with representatives of producers of medications which based on EMA (European Medicines agency) requirements do safety studies for their drugs. The current state of these drugs has been presented during the meeting.



PRESS CONFERENCE MAY 25, 2020

In 2020, the press conference was rather untraditional in many ways. For the first time in the history of both IMPULS, Endowment Fund, and ReMuS, it took place online. The theme was timely – doctors and experts talked not only about reactions of MS patients to the current coronavirus crises, but also about needed reactions “on the other side of the table”, i.e. about reactions of doctors or nurses. It turned out that in certain ways the MS patients are in advance before the coronavirus

threat – be it thanks to a regular use of Vitamin D, or be it for a better hygiene and cautiousness to which they are used to in their daily life. Due to the high visit rate of individual MS Centers, the doctors had to solve the problem of distance between people and safety in order to prevent the spreading of virus. At that moment, telemedicine has had its turn. Although it cannot fully replace classical meetings, both doctors and patients shall utilize its advantages in the future for sure.



INTERNATIONAL CONGRESS ACTRIMS–ECTRIMS SEPTEMBER 11–13, 2020

World Neurological Congress Actrims-Ectrims had to take place in Washington in 2020. Albeit due to pandemic, the experts from both sides of the Atlantic Ocean met just virtually, this meeting bought its fruits. One of the initial parts of the whole event was moderated by Prof. Eva Kubala Havrdová, MD, CSc., from General University Hospital in Prague. She is a Czech neurologist and a worldwide acknowledged specialist in MS issues. ReMuS Registry contributed to the program through scientific group Research Collaboration Network (RCN). All the submitted abstracts have been presented. Two of them even in the form of personally presented contributions of scientific symposium. Prof. Jan Hillert, an extraordinary respected physician and scientist from the Department of Clinical Neurosciences of the Swedish University and Hospital Karolinska Institutet, took care of the first lecture on secondary progressive MS. The second lecture was held by Lars Eric Forsberg, data manager of the Swedish MS Registry and author or co-author of more than 40 scientific publications in the area of neurology, imaging methods and MS.

Ongoing disease modifying treatment associated with mis-classification of secondary progressive as relapsing-remitting multiple sclerosis

J. Hillert¹, L. Forsberg¹, A. Manouchehrinia¹, R. Ramanujam¹, T. Spelman¹, P. Klyve¹, J. Drahota², D. Horáková³, H. Joensen⁴, M. Magyar⁵, D. Ellenberger⁶, A. Stahmann⁷, A. Van Der Walt⁸, J. Rodgers⁹, R. Middleton⁹, R. Nicholas⁹, V. Bezlyak⁹, N. Adlard⁹, T. Hach⁹, C. Lines⁹, A. Glaser¹

¹Karolinska Institutet/Stockholm/Sweden, ²Czech national multiple sclerosis patient registry ReMuS, IMPULS Endowment Fund/Prague/Czech Republic, ³First Faculty of Medicine, Charles University and General University Hospital in Prague/Prague/Czech Republic, ⁴Danish Multiple Sclerosis Center/Glostrup/Denmark, ⁵MS Forschungs- und Projektentwicklungs-gGmbH/Hannover/Germany, ⁶Monash University/Melbourne, VIC/Australia, ⁷Swansea University Medical School/Swansea/United Kingdom, ⁸Imperial College London/London/United Kingdom, ⁹Novartis Pharma AG/Basel/Switzerland

ReMuS IMPULS MSBase Imperial College London University of Manchester University of Edinburgh University of Glasgow Karolinska Institutet

Validation of three Secondary Progressive Multiple Sclerosis classification methods in five registries within the SPMS Research Collaboration Network

L. Forsberg¹, A. Glaser¹, A. Manouchehrinia¹, R. Ramanujam¹, T. Spelman¹, P. Klyve¹, J. Drahota², D. Horáková³, H. Joensen⁴, M. Magyar⁵, D. Ellenberger⁶, A. Stahmann⁷, A. Van Der Walt⁸, J. Rodgers⁹, R. Middleton⁹, R. Nicholas⁹, V. Bezlyak⁹, N. Adlard⁹, T. Hach⁹, C. Lines⁹, J. Hillert¹

¹Karolinska Institutet/Stockholm/Sweden, ²Czech national multiple sclerosis patient registry ReMuS, IMPULS Endowment Fund/Prague/Czech Republic, ³First Faculty of Medicine, Charles University and General University Hospital in Prague/Prague/Czech Republic, ⁴Danish Multiple Sclerosis Center/Glostrup/Denmark, ⁵MS Forschungs- und Projektentwicklungs-gGmbH/Hannover/Germany, ⁶Monash University/Melbourne, VIC/Australia, ⁷Swansea University Medical School/Swansea/United Kingdom, ⁸Imperial College London/London/United Kingdom, ⁹Novartis Pharma AG/Basel/Switzerland

Objective classification methods result in an increased proportion of secondary progressive multiple sclerosis in five patient registries

A. Glaser¹, L. Forsberg¹, A. Manouchehrinia¹, R. Ramanujam¹, T. Spelman¹, P. Klyve¹, J. Drahota², D. Horáková³, H. Joensen⁴, M. Magyar⁵, D. Ellenberger⁶, A. Stahmann⁷, A. Van Der Walt⁸, J. Rodgers⁹, R. Middleton⁹, R. Nicholas⁹, V. Bezlyak⁹, N. Adlard⁹, T. Hach⁹, C. Lines⁹, J. Hillert¹

¹Karolinska Institutet/Stockholm/Sweden, ²Czech national multiple sclerosis patient registry ReMuS, IMPULS Endowment Fund/Prague/Czech Republic, ³First Faculty of Medicine, Charles University and General University Hospital in Prague/Prague/Czech Republic, ⁴Danish Multiple Sclerosis Center/Glostrup/Denmark, ⁵MS Forschungs- und Projektentwicklungs-gGmbH/Hannover/Germany, ⁶Monash University/Melbourne, VIC/Australia, ⁷Swansea University Medical School/Swansea/United Kingdom, ⁸Imperial College London/London/United Kingdom, ⁹Novartis Pharma AG/Basel/Switzerland



EXPOSITION OF ORGANIZATION ROSKA IN PILSEN OCTOBER 10–31, 2020

Within the frame of the unending public awareness on multiple sclerosis and its aspects, the regional branch organization ROSKA, Pilsen, in cooperation with Centre for Diagnostics and Treatment of Demyelinating Diseases, MS Centre University Hospital Pilsen, organized an informative exhibition in the premises of the shopping mall Globus. Besides IMPULS, Endowment Fund and national ReMuS Registry, and MS Center of University Hospital Pilsen, other institutions and organizations such as spa facilities focused on MS patients, or some non-profit organization with the same aim, presented themselves.



EDUCATIONAL SEMINAR FOR NURSES OCTOBER 16, 2020

This year educational seminar for nurses from MS Centers within the project of longterm education with supervision has been postponed from its original date in March to another date in autumn.

This great and helpful event aims to provide a necessary and needed psychological support to non-medical staff of MS Centers. It is an effective prevention against a possible burn-out. Sub seminars of this project are being regularly repeated for several years. And the current workshop focused especially on team reflection of professional events, finding out variations and possibilities in solving situations, or enhancing of interpersonal competences of both, individual and team. As a final result, this all together can bring a higher prosperity not only to particular MS Centers but primarily to individual patients in them.



Who Are We, People from ReMuS Registry?

ReMuS is the Czech statewide Registry of patients with multiple sclerosis. Now, it is more than eight years since we have been working on collecting data. We support scientific and research activities. In this way we help to ascertain the efficacy of different kinds of treatment, or monitor its risk which could lead to the progression of the disease. We map the current and real situation in the Czech Republic. Of approximately 22,000 people struck by multiple sclerosis, we are collecting data from 17,485 patients who gave us their informed consent. Regardless the age, gender, stage of the disease, type of treatment, and place of residence, the informed consent is the only condition for the entry into the Registry. We collect systematic, areal, complete, long-term and quality data. And we need such kind of data in order to help patients to find the right kind of treatment at the right time. Only quality data from real clinical practice can help to develop new, safer and more effective possibilities of treatment of MS.

As the years go by, field of activity of Registry ReMuS is widening. In the first two years of its existence we only collected data of patients treated with biological drugs (DMD Drugs). In the third year, we began to monitor also patients who do not suffer any form of disease with attacks. Together with individual MS Centres we cover the territory of entire Czech Republic and we follow up the successful cooperation with foreign Registries and international research teams. We participate in international neurological conferences and congresses and still continue searching new possibilities and ways how to contribute to a higher safety and efficacy of treatment – and in this way to a better and happier life of each and every patient. They are people from flesh and bones who have their own stories, their own dreams and plans, and into whose lives the multiple sclerosis entered as an uninvited guest. Even though it is not possible to cure it completely, we believe that it is absolutely essential to slow down its progress and maybe reduce health limitations connected with it. We believe that every human being matters – and that only a long-term accurate work of collecting data can bring desired positive changes in this area.



JANA VOJÁČKOVÁ, MSC., MBA
CEO of ReMuS Registry

If Jana were not a human being she would be an engine in the realm of technics. Indeed, her greatest gift is to put things in motion with an almost incredible strength. Staying on the top of things and with quite an amount of grace, she represents the compass that sets direction to our future steps in the Registry. With a passion for everything she undertakes she makes time to support us in moments when we do not know which way to go. Jana is the kind of person you can rely on in whatever situation – and that not only in terms of work but also as a human.

She likes the best to gain new strength in the fresh air, with her family, in the garden, or in the nature. So when she switches off the engine for a while, you will find her right there.

janavojackova@multiplesclerosis.cz



ASSOC. PROF. DANA HORÁKOVÁ, MD, PHD.

Guarantor of Expertise of ReMuS Registry

Dana loves joking that together with Jana they are “co-mothers” of our Registry. And there’s no other possibility but to agree with her. If it were not for her unflagging endeavor, enthusiasm and erudition, ReMuS would not be where it is today. She is endowed with a beautiful human combination – she is an excellent doctor, a good manager, and above all she is a great human being. Although being very busy as a doctor, university teacher, and supervisor of many research projects, she would not be true to herself if she did not have any time for what she loves the most – her family and sport.

dana.horakova@vfn.cz



JIŘÍ DRAHOTA, MSC.

Manager of Clinical Studies of ReMuS Registry

When we decided to find another cordial man for our team we found Jiří. Science, technology, people and trade. Seemingly, these areas are not connected with each other. Yet, Jiří managed to find an interconnection and joy in them. Just the life could orchestrate such happy chance that brought Jiří to our team where he with enthusiasm creates conditions for the Czech participation in international research projects. And in our Registry he is the one who doesn’t miss any detail. So you can be sure he will notice things that we others just do not see. Moreover, with his seventh esthetic sense he will improve it at best. When he happens not to be in his office, you can find him somewhere in foreign regions which are his second joy.

jiridrahota@multiplesclerosis.cz



KATEŘINA TICHÁ, BSC.
Asistent of ReMuS Registry

In ReMuS it is Kateřina who takes care that everything passes smoothly. Be it communication with partners or colleagues or arranging things that we others do not like. Even though her work is not always seen on the outside, her conscientiousness, and accuracy are an essential help for each of us. And most importantly, whenever it is necessary she reaches out to the folder. And she has it!

Although calm and seemingly silent, there is an incredible inner strength and above all a pure humanity hidden in her. She loves Czech language and is able to use it in a beautiful way not only in her verses but also in music where she can be very real, as we know her from the Registry. And where does she gain energy? In interesting landscapes, alone, voluntarily separated from overtechnized civilization.

katerinaticha@multiple sclerosis.cz



ZDENĚK TELIČKA, MSC.
IT Support of ReMuS Registry

With his personality traits, Zdeněk is the ornate part of our Registry. He is a big optimist and enthusiast for whom the Registry represents a heart matter and a big challenge at the same time. In his free time, he dedicates us his rich working experience. Throughout the Republic, there is nothing he could not solve. In relation to the Registry he is an incredible penny pincher – he knows that there's not much money, and so he thinks hard for a long time and then he comes out with an absolutely original and simple solution which is five times cheaper than all the other proposals. In his free time, however, he is primarily a gourmet and a great patriot. Do you want to go to a good restaurant? Do you want an advice concerning a good drink? Don't be afraid to ask our Zdeněk. With absolute certainty he will recommend you quality in his native Ostrava, in Prague where he works, or in Brno where he helps small Czech wine growers to reap their harvest and to produce the great Czech wine.

remus@multiple sclerosis.cz



ANETA MAZOUČOVÁ, PHD.
ReMuS Registry Statistician

There is no doubt that numbers play an essential role in the ReMuS Registry. Their right grasp, analyses, and especially the following conclusions are always responsibility of human beings. The most recent support of our team, an excellent statistician Aneta, orients herself perfectly and with endeavor in the wild jungle of percentages, shares, curves, or coefficients. And that all in order our Registry could gain from the numbers the most accurate answers to the questions of doctors, scientists, partners, and professionals from different spheres of health care and social care.

Statistics is a beautiful and exact science. Every day it convinces not only us but also its students at the universities where it is taught. When Aneta needs to gain new strength, she spends some time in Moravia with her family – with her husband Petr and their twins Jakub and Anička. Or she also likes just to sit down and drink a glass of good wine.

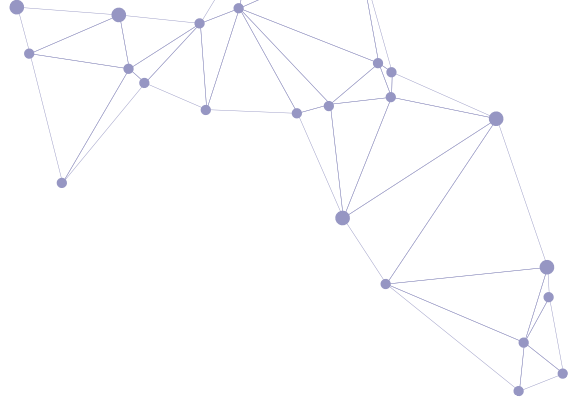
anetamazouchova@multiplesclerosis.cz



FOUNDERS, AND CONTROLLING BODIES OF REMUS REGISTRY, AS OF 12. 31. 2020

Founder of ReMuS Registry is IMPULS, Endowment Fund, which acts as owner of data, administrator of the Registry, and its operator. Based on a common memorandum on Cooperation, Section for Clinical Neuroimmunology and Liquorology ČLS ČNS JEP (SKNIL) assumed the role of guarantor of expertise.

What Is Surely Coming to Pass

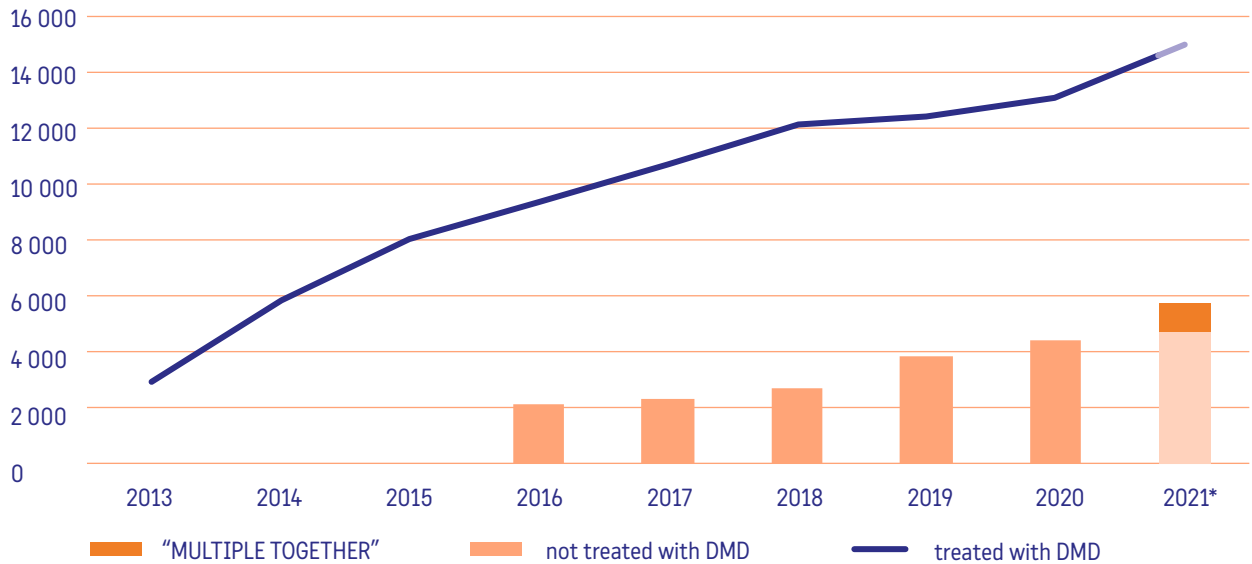


MULTIPLE TOGETHER

This project could be boldly called “Patients to themselves”. From initiative of the patients themselves came the idea that although some of them are not cured in specialized MS Centers, they would like to join ReMuS Registry with their data and suggestions. Especially for them the project arose in 2020. Its aim

is to map better the situation of patients who have not been in the Registry yet but are connected in patient organizations of Union ROSKA. By the end of 2020, the foundation of the project has been laid. And in 2021, we expect its beginning which will be another milestone in the life of ReMuS Registry.

NUMBER OF PATIENTS IN THE REMUS REGISTRY GROUPED BY CURRENT TREATMENT 2013–2020



RCN SPMS STUDY 3

The third in a series of studies on secondary progressive form of MS follows up the previous two parts and shifts them further. Besides widening of this study by other two partner RCN Registries, we are expecting an analysis of many interesting factors starting from 2021. These factors are connected with the secondary progressive phase – e.g. clinical and demographic characteristics, frequency of relapses, efficacy of treatment, resonance activity, or the degree of impairment. Especially the development of disability will see in-depth analyses of patients

over years in the context of different kinds of treatment and other parameters. In essence, this study is innovative especially because it sees the patients through all of the four methods of discerning secondary progressive phase of MS – from the professional assessment by a doctor to automated methods according to the study EXPAND, an Australian method MSBase by Johannes Lorschieder and the method Decision Tree of Swedish Karolinska Institutet.

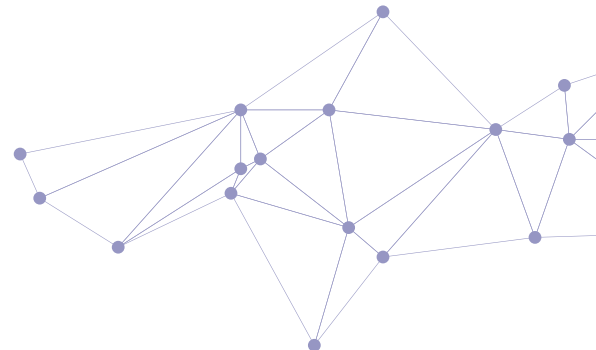
THE BIG MULTIPLE SCLEROSIS DATA NETWORK, ABBRV BMSD

We have already introduced International Group of Registries BMSD. In 2021, we will face an extraordinary important and complex task within the frame of BMSD. And that is obtaining a positive statement from the highest European health care institution – European Medicine Agency (EMA) – concerning the realization of safety studies. Every producer of medical preparations who wants to introduce new drugs on the market must carry out

these studies. Their aim is a long-term monitoring of safety of the treatment in conditions of real practice. So far, these studies have been domain of professional associations. If EMA gives the certification to BMDS, including the Czech ReMuS Registry, the role of the Registries will be essential and will allow an areal view not only on the safety of individual drugs.

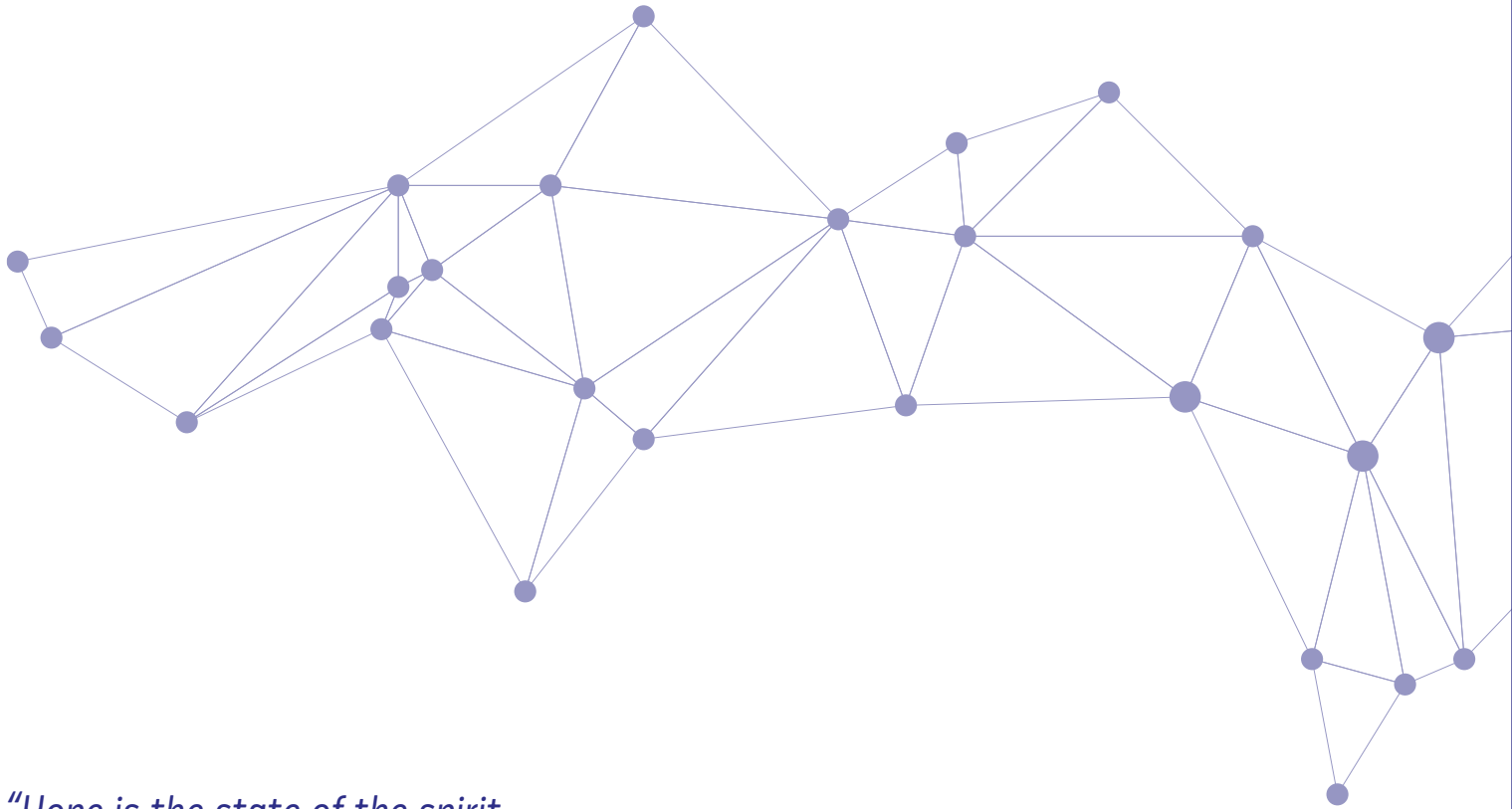
MDS

The big task that the ReMuS Registry is facing together with 15 specialized MS Centers, is a gradual transition to a modern tool of data collection named MDS. This software focuses in a unique way on specifics of MS disease and its treatment. We are working on its gradual implementation on a long term basis.



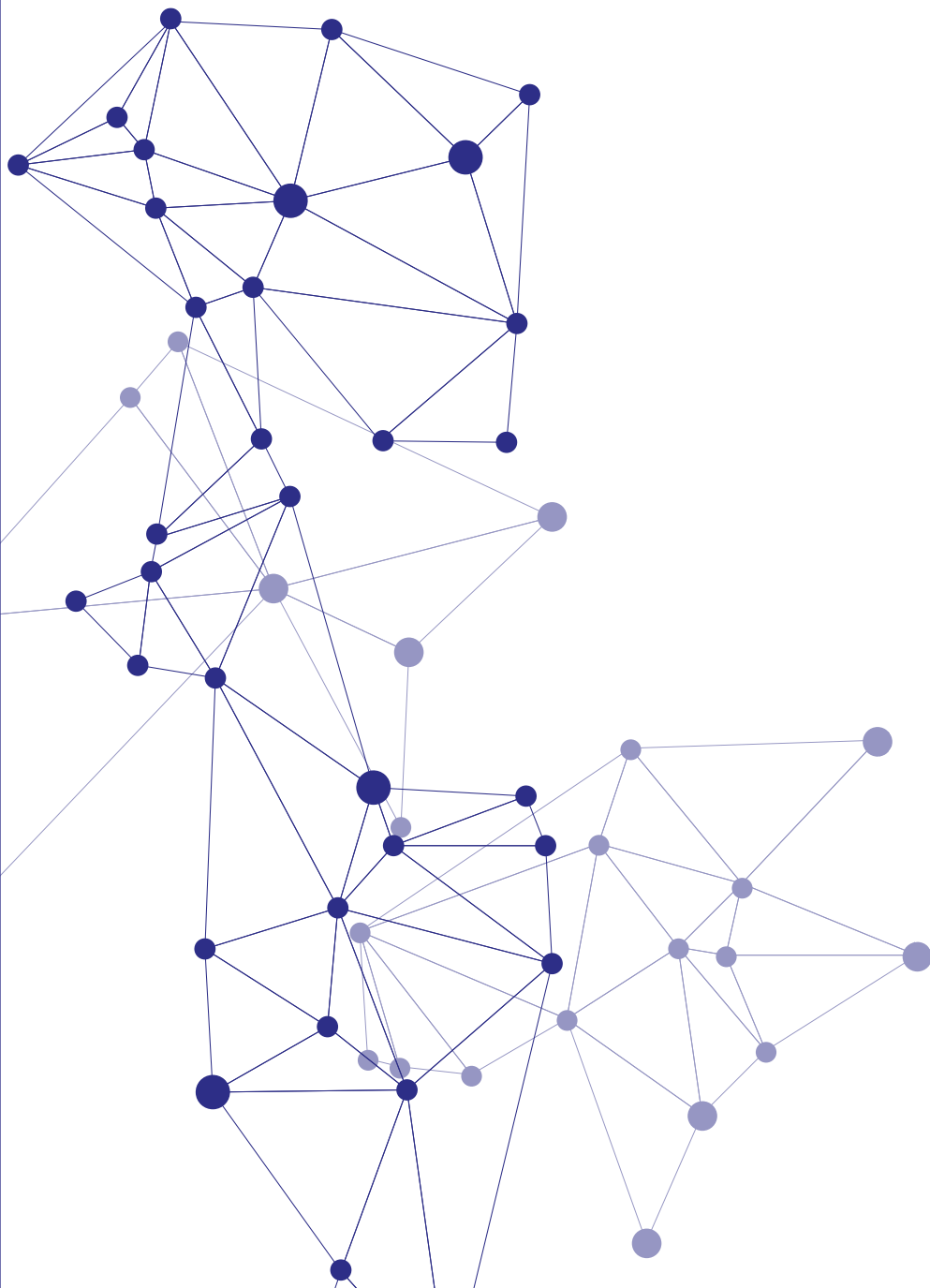
Thank you!

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*"Hope is the state of the spirit
that gives sense to our life."*

— Václav Havel



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