

ERA-NET NEURON

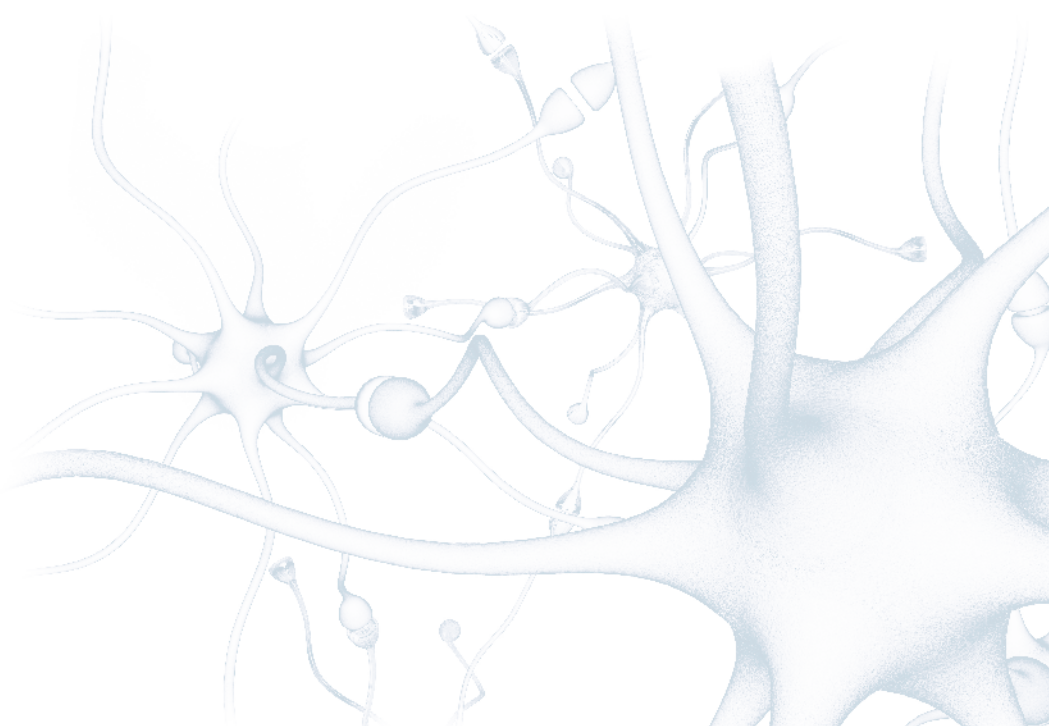
STRATEGIC RESEARCH AGENDA



Part II, FEEDBACK FROM PROFESSIONAL AND PATIENT ORGANISATIONS

Contents

Introduction	4
Methodology	4
Scientific priorities	5
Specific priorities and challenges	7
Enabling activities	8
Conclusion and acknowledgement	9
Annex 1 - Comments or suggestions	10
Annex 2 - Questionnaire ERA-NET NEURON, SRA 2021-2025	15



Introduction

The ERA-NET NEURON is a network of research funding organisations and ministries across Europe, Israel, Canada, and Turkey dedicated to disease-related neuroscience. Joint efforts supporting small to medium scale transnational research consortia have been recognised as key instruments to provide adequate funding to the neuroscience community. Identifying the current but also the upcoming and emerging hot topics in disease-related neuroscience is imperative for the success of NEURON. That is why developing a Strategic Research Agenda (SRA) to identify and tackle opportunities and challenges in disease-related neurosciences was a priority of NEURON. The SRA was first authored in 2015 by the international NEURON Scientific Advisory Board and a group of additional scientists, as a framework for the future scientific and strategic focus of NEURON and trans-European research efforts. Within the fields of neurological, psychiatric, sensory organ and peripheral nervous system disorders, three main areas were addressed:

- (i) understanding disease mechanisms,
- (ii) understanding disease progression, and
- (iii) interventions.

An update was authored in 2020 by a group of renowned international researchers to underline specific hot topics, future perspectives and bottlenecks (updated NEURON SRA 2020). Supporting collaborative transnational research approaches in those areas will contribute to significant improvement in understanding brain diseases and thereby reducing the suffering of patients and lowering the burden for the national health care systems.

Promoting a dialogue between researchers and patient organisations represents another priority of NEURON. This is important as it allows to collect and discuss the needs of patients and their families in order to shape research to address them more precisely. Furthermore, the dissemination of information about brain research is brought forward by actively engaging patients and their representatives. To ensure its priorities are aligned with those of the

trans-European brain-disease community, NEURON launched a survey to seek feedback from patient organisations, professional societies and researchers about the updated SRA.

Methodology

A questionnaire containing multiple choice and open questions (see annex 2) was sent out between June and July 2020, to 63 professional societies and 162 patient organisations from NEURON partner countries.

Eight professional societies and six patient organisations responded, representing response rates of 11 % and 4 %, respectively (*Figure 1*). The feedback collection during the coronavirus crisis in summer 2020 may account for the lower-than-expected response rates. While direct feedback from several countries was missing, we collected responses from three professional societies (Federation of European Neuroscience Societies; European Academy of Neurology; European Psychiatric Association) and two patient organisations (European Charcot-Marie-Tooth Federation; European Neuromuscular

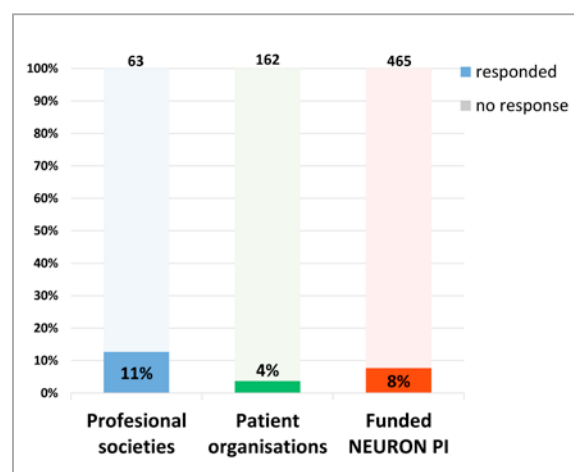


Figure 1: Response rates of contacted organisations and researchers. Eight out of 63 professional societies (11 %), 6 out of 162 patient organisations (4 %) and 35 out of 465 funded NEURON PIs (8 %) responded to the survey.

Centre), which have Europe-wide presence, providing general views independent of country specifics.

To complement the responses from professional societies, direct feedback was sought from researchers. The same questionnaire was sent to principal investigators (PI) of the projects funded by ERA-NET NEURON since 2009. Thirty-six out of 465 researchers responded, resulting in a response rate of 8% (Figure 1).

For each question concerning the level of satisfaction, five choices were offered: totally satisfied (blue in Figures 2 to 8), satisfied (yellow), moderately satisfied (grey), unsatisfied (orange), and not satisfied (light blue). The first two choices were considered as globally positive rating, while the last three were considered as globally negative ratings. Additionally, comments were invited for each question, summarised below.

Scientific priorities

The first research priority on **understanding disease mechanisms** gathered high approval, with 92% of the respondents expressing a positive opinion (Figure 2). Specifically, it was highlighted how this priority allows for further development in diagnosis and treatment of brain diseases and for the integration of basic research.

Some constructive or critical suggestions have been noted as well:

One comment suggested that clinical work seemed excluded in this first research priority. To this comment we must precise that, even though basic neuroscience is an important part to a mechanistic understanding of diseases, clinical research also is comprised under this scientific priority and the translation of basic results into clinical research is a central objective of NEURON. Another respondent estimated comorbidity as a problem too difficult to tackle in this first priority. To respond to this estimate, we consider multi- and co-morbidities and their underlying mechanisms, despite the complexity of this topic, as too important for not including it in NEURON's priorities.

Regarding disease models, specifically, it was recommended to foster efforts on advanced models such as non-human primates, advanced animal models, and human in vitro models with sufficient cellular and structural complexity. Other examples of novel technologies and methods were also proposed, namely native frozen functional states of neuronal tissue, correlative light-electron microscopy of synaptic contacts, and tools to perform pharmacological perturbation screens in models.

Lastly, suggestions were made to add focus on physiological mechanisms, especially regarding resilience and translation regulation to the key mechanisms of multi- and co-morbidities.

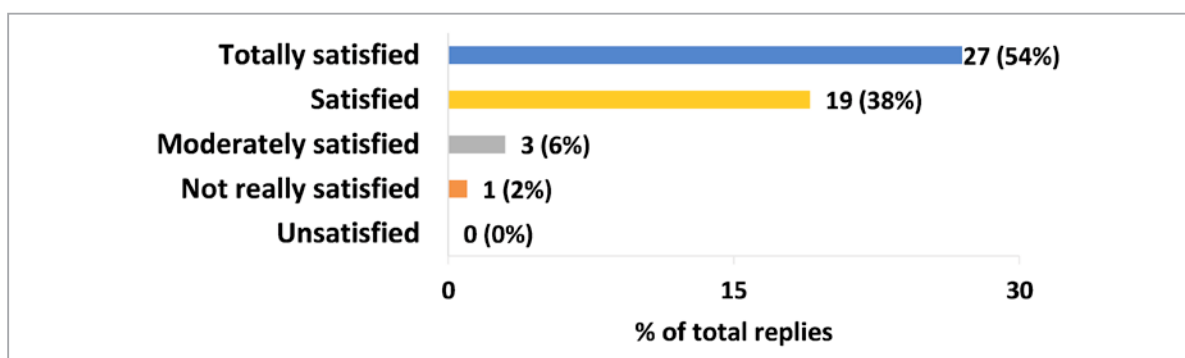


Figure 2: Distribution of response reflecting satisfaction about the first scientific priority “Understanding Disease Mechanisms”. Thus, 92% of respondents expressed a positive opinion and 8% expressed a negative opinion. The total number of responses and percentage of total are indicated adjacent to the bars, respectively.

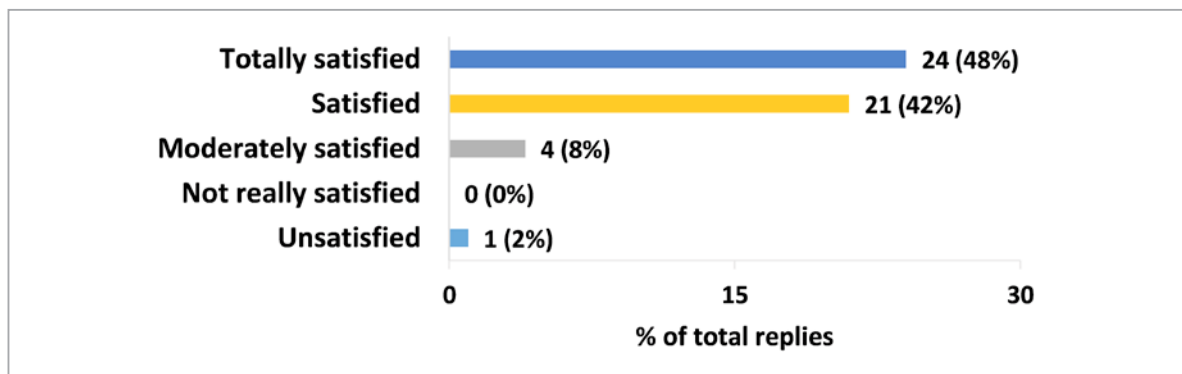


Figure 3: Distribution of responses reflecting satisfaction about the second scientific priority “Understanding Disease Progression”. In sum, 90 % of respondents expressed a positive opinion and 10 % expressed a negative opinion.

The second scientific priority on **understanding disease progression** received a slightly lower positive rate, reaching 88 % of positive opinions (Figure 3). Its definition was well received in comments, especially regarding tools for early disease detection and classification. Yet, some respondents deplored that the second priority is too reductionist. They were concerned that fundamental research and systems biology could be left behind to favour clinical research. It should be noted that, while being indeed more clinically oriented, this second scientific priority is still heavily driven by fundamental research and technological advances. In this regard, the importance of multidisciplinary and system approaches for molecular markers was underlined in other comments, especially not to “ignore the person behind the marker”.

It was noted that the gender-related differences in diseases have been neglected from the scientific priorities: while it has not been included as a priority in the SRA, this topic was considered during the foresight symposia when relevant. Another comment suggested focusing more towards protein synthesis regulation in diagnosis. Lastly, investigation of therapeutic failures was also suggested as a relevant topic.

The third priority on **Interventions** gathered overall satisfaction with 90 % of positive responses (Figure 4.). Several comments highlighted how this topic represents “the final goal from which medicine profits”. Some respondents even suggested giving it a more central place in the SRA, while one organisation underlined it being rightly positioned

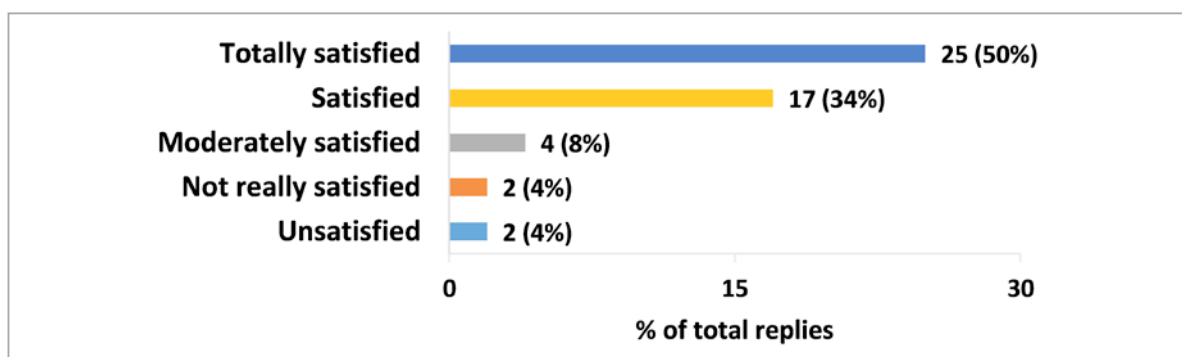


Figure 4: Distribution of response reflecting satisfaction about the third scientific priority “Interventions”. In sum, 84 % of respondents expressed a positive opinion and 16 % expressed a negative opinion.

as the 3rd priority as it “*derives to a large extent from Topics 1 and 2*”. Being clinically oriented, this scientific priority received a more mixed perception, as it may give less space to fundamental research. A few researchers participating in previous NEURON calls specified that most of these priorities fall outside their research area and cannot be commented on in further detail.

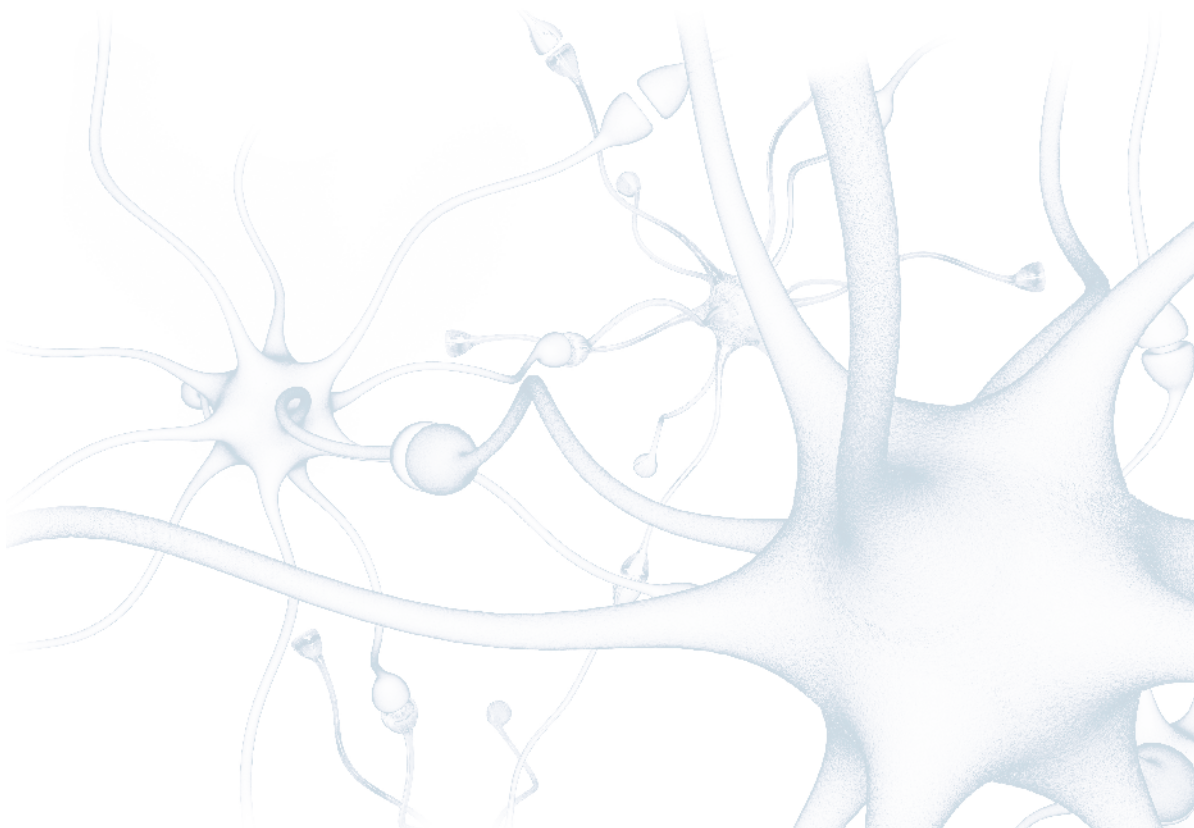
It was commented that non-invasive interventions have been neglected in the SRA. Another note suggested to give more attention to the variability in outcomes to devise new interventions.

When asked, 49 % of respondents thought other priorities should be included in the frame of ERA-NET NEURON.

Interestingly, contrary views were expressed regarding the proportion of fundamental and clinical research invited in the priorities, as several comments asked for either fundamental, translational, or clinical work to be strengthened. Opinions were also mixed in whether or not clinical trials should be emphasised or not within NEURON, as the available budget might be too tight for it.

Regarding specific scientific priorities, several comments stressed the importance of developing better animal models, namely non-human primates, for across species investigation of disease-related biological processes. Environmental factors such as lifestyle, diet or sleep were also mentioned as important topics, both regarding risk factors and treatment factors. Some comments also suggested to investigate post-therapy questions, such as rehabilitation and therapeutic outcomes. Other suggested topics included connectomes and synaptomes, stem cells, plasticity, regeneration, aging, extracellular vesicles, de-regulated protein synthesis, pathophysiology studies based on human samples, among others.

Finally, one respondent advised to include patient experts, in order to better connect with patients’ needs. It was also suggested to leave more space for human sciences in the frame of NEURON in order to investigate social aspects and influence of research on health care.



Specific priorities and challenges

The questionnaire also requested opinions concerning the specific priorities and challenges to individual diseases and disease categories, which also received positive reception overall.

Recurring comments, however, criticised the use of example diseases. On the one hand more concrete examples were requested, on the other hand, it was worried the named examples might highlight some disease categories too much. It is to note that NEURON usually states a non-exclusive list of exemplary diseases in the call text and no disease is to be favoured within NEURON. Only the diseases mentioned on page 24 of the SRA being excluded, namely neurodegenerative disorders, which are covered by the 'Joint Programme – Neurodegen-

erative Disease Research' (JPND) and attention is paid to avoid overlaps between JPND and ERA-NET NEURON (as explained on page 24 of the SRA).

Regarding **neurological diseases** specifically, 90 % of the respondents expressed positive opinion on these priorities (*Figure 5, Figure 6*).

The focus on interactions of the brain with the rest of the body was well received, even though more emphasis was claimed by some. It was also suggested to bring more focus on plasticity and on an array of novel molecular-imaging methods. Lastly, one comment suggested fostering the creation of disease atlases combining multi-omics, clinical and naturalistic data, despite recognising that such project might be outside the scope of NEURON's supported activities.

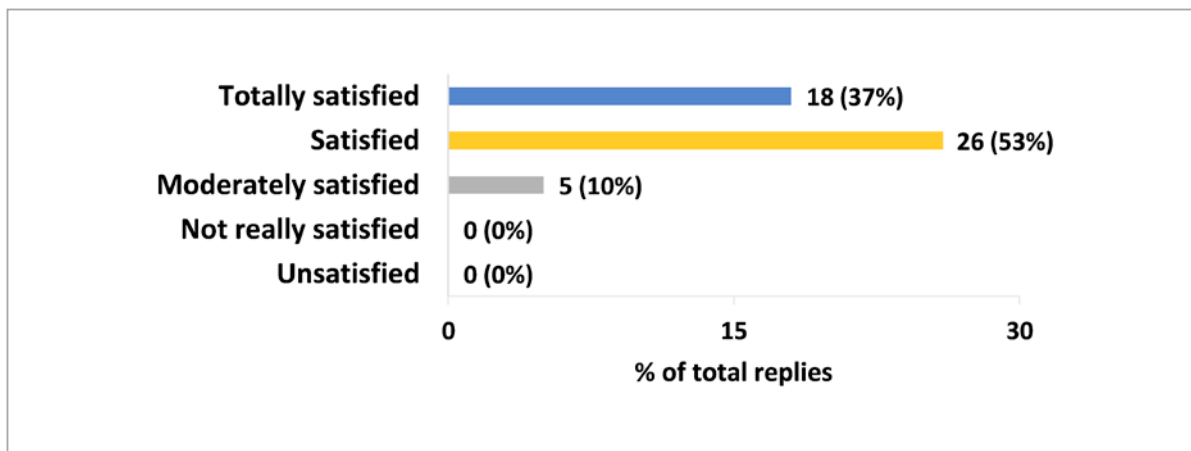


Figure 5: Distribution of response reflecting satisfaction about the specific challenge on neurological diseases. In sum, 90 % of respondents expressed a positive opinion and 10 % expressed a negative opinion.

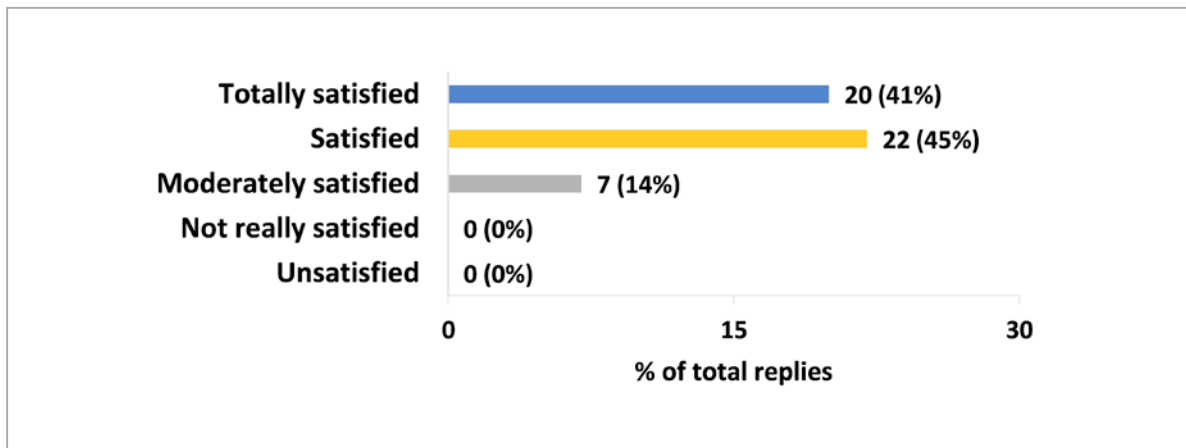


Figure 6: Distribution of response reflecting satisfaction about the specific challenge on psychiatric disorders. In sum, 86 % of respondents expressed a positive opinion and 14 % expressed a negative opinion.

The priorities and challenges on **psychiatric disorders** identified in the SRA gathered 86 % positive responses (Figure 6). One comment especially pointed out the relevance of focusing on disease progression in psychiatric disorders associated with translational approaches.

Lastly, respondents were slightly less satisfied with the specific priorities on **sensory organ diseases and peripheral nervous system disorders**, gath-

ering 81 % positive responses (Figure 7). Some comments pointed out the importance and relevance of this section, especially given the high prevalence of sensory disorders. Another comment also underlined how these priorities leave space for basic science research. One respondent, however, qualified the subject as “non-specific” and suggested focusing on the “Peripheral Nervous System Disorders” alone.

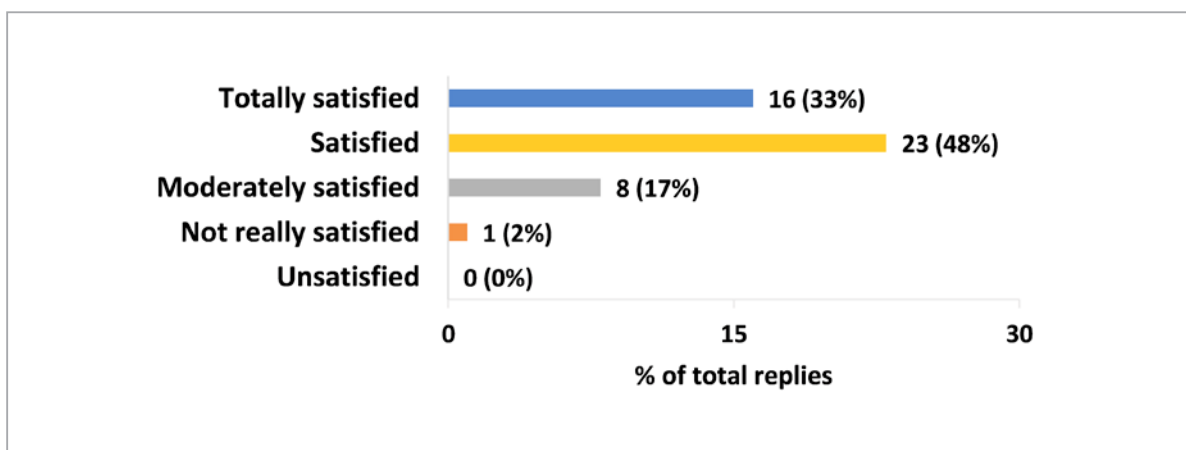


Figure 7: Distribution of response reflecting satisfaction about the specific challenge on sensory organ diseases and peripheral nervous system disorders. In sum, 81 % of respondents expressed a positive opinion and 19 % expressed a negative opinion.

Enabling activities

The **enabling activities** addressed in the SRA resulted in 93 % positive response (*Figure 8*).

Yet, some respondents asked for more transparency regarding the funding available from each country in NEURON's calls, in order to improve the success rate of applications. It was also recommended to strengthen the interactions with other European Initiatives, namely with biomedical technology initiatives. ERA-NET NEURON is strongly committed in fostering concerted actions between European Programs and organisations and intends to continue to work in this direction.

Lastly, several respondents reported not being aware of NEURON's enabling activities, pointing towards insufficient communication on these activities, which should be improved in the future.

patient organisations alone, even 95 % of the respondents expressed an overall positive opinion.

The response rate from organisations and researchers, being lower than expected (expectedly due to the COVID19 situation), could raise a question of representativeness of these results, yet several significant trans-Europe organisations did provide feedback, such as FENS. This, along with comments on the enabling activities, suggest that the neuroscience community is still not familiar enough with NEURON and its activities. It is thus important, as part of the enabling activities of NEURON, to involve professional and patient organisations more actively, in order to foster dialogue and gain visibility for the network and for brain research.

We would like to thank all the participants for taking the time to answer and for their insightful comments that will help NEURON partners to shape the strategy and the future calls.

Conclusion and acknowledgement

In summary, pooling all answers to all questions, 88 % of the collected feedback about NEURON SRA was positive. Considering professional societies and

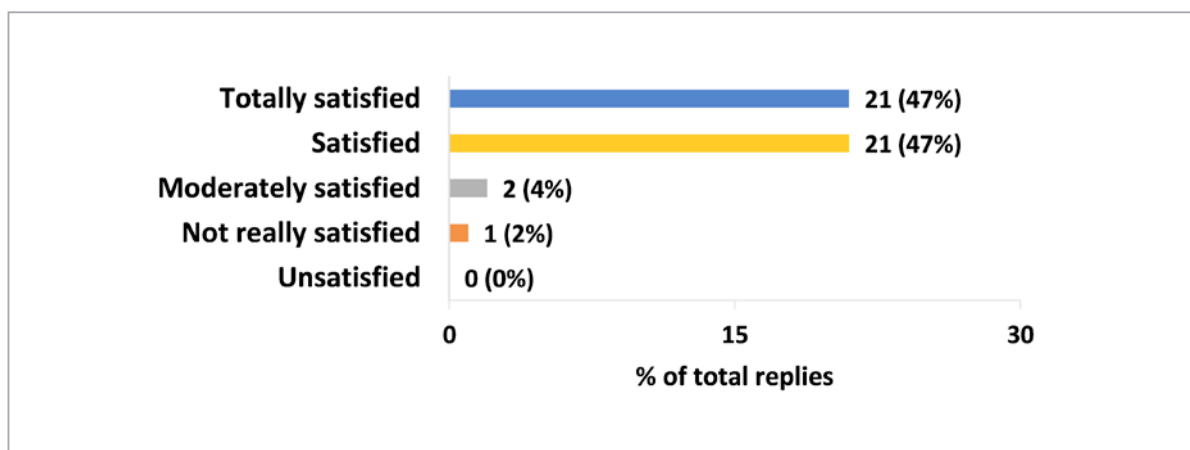


Figure 8: Distribution of response reflecting satisfaction about enabling activities of ERA-NET NEURON. In sum, 93 % of respondents expressed a positive opinion and 7 % expressed a negative opinion.

Annex 1 - Comments or suggestions

Question 1: "Understanding disease mechanisms (cell-based & animal models, comorbidities, and resilience)"?

- Understanding mechanisms is a prerequisite for rational progress in diagnosis and treatment of brain diseases. Thus, we believe it is the right choice as first priority.
- I somehow miss a bit the topic mechanism of therapeutic efficacy/Outcomes beside disease mechanisms.
- I am basic researcher in the field of neuroscience. In my view, European programmes put too much, rather short-sighted emphasis on translation. This is one of the few topics that allows integration of basic research teams.
- I would add that understanding mechanisms under health is also important, because without that disease mechanisms cannot be understood. Also, when focussing on resilience, we have to know what 'healthy' mechanisms are.
- A bit broad and narrow at the same time, not sure this is an entity.
- Although research on rodent models has provided us with some insights into molecular pathways affected in psychiatric phenotypes, future research should be extended to non-human primate models of disease. Neuroanatomy, behavior and prolonged cognitive development of non-human primates more closely resemble the ones of humans, which arguably makes this species a better model for an investigation of higher brain function and mental disorders.
- very general, but ok. The way it reads it seems to exclude clinical work? This should be included
- Comorbidities is a difficult problem to tackle, I would not include it there.
- Novel methods could include native frozen functional states of neuronal tissue ("zap-&freeze"),

correlative light-electron microscopy of synaptic contacts.

- Advanced preclinical models that more closely represent specific disease processes in humans are urgently required to understand disease mechanisms. These models can be advanced animal models (xenografted animals bearing human cells) or human iPSC-derived in vitro models (organoids, organ-on-chip) and should present sufficient cellular and structural complexity (e.g. integration of multiple organoids to study organ-organ interactions). The field also needs tools to perform genetic (e.g. CRISPR-Cas9) or pharmacological perturbation screens in such models, and analyze the responses at the single-cell level, ideally imaging-based spatial multi-omics approaches. Disease models and iterative large-scale perturbations can then be used to test and train machine learning derived computational models of disease, to increase their accuracy and predictive value. Careful benchmarking of technologies and models, data sharing and standardization are of paramount importance, and this also applies to the other scientific priorities listed below.
- Due to the specific morphology of neurons, local protein synthesis (mRNA translation) and mRNA localisation play a key role in the proper neuron functioning, including memory and learning formation. Moreover, it is well documented that translation regulation is fundamental in cell fate specification during early development. Therefore, in addition to genetics, epigenetics, and environmental risks factors, have also translation regulation among priorities for identifying the mechanism, underlying co-and multi-morbidity for nervous system disorders would significantly increase the chances of identifying such mechanisms.

Question 2: "Understanding Disease Progression (Pathology, Diagnosis, Biomarkers, Stratification)"?

- We agree with ERA-NET Neuron that understanding disease progression, with a focus on

early diagnosis, identification of biomarkers and stratification. These aspects are particularly relevant in the case of mental health.

- It is a bit too reductionist, more systems biology, etc. would be good.
- Since sex-related differences has been recognized in some diseases, it would be of interest to include gender-related studies in Topic 2.
- The same here: disease progression and therapeutic failure would be interesting
- Never applied under this topic
- Here fundamental research may not fit.
- seems too clinical
- Well defined
- Yes, if it means multidisc. And system approaches, looking at different organs and system; please not more single molecular markers which ignore the person behind the marker.
- The interplay between genetic and epigenetic markers, brain connectivity and early environmental stress (such as childhood abuse) should be considered as a priority
- The lack of disease classification based on molecular criteria is one of the main roadblock for the development of effective, tailored therapies for neurological and psychiatric diseases. Large efforts should be devoted to identifying low-cost, non-invasive diagnostic tools for early disease detection.
- Since the proteins are the final effectors of cellular function, for the effective diagnosis, biomarkers and diagnosis it is important to bring into the focus the de-regulated protein synthesis in nervous system disorders. Defects in protein synthesis might lead to the same phenotype as if the genes encoding these proteins would be mutated. Thus, it deserves the same level of attention.

Question 3: "Interventions (Prevention, Treatment, Care / Management)"?

- Topic 3 derives to a large extent from Topics 1 and 2. For the patients and society, it is certainly the most important aspects. But progress in this area requires better understanding mech-

anisms and progression. Therefore it is rightly positioned as the 3rd priority.

- May have important societal impact!
- This is something for routine work
- Studying variability in outcome would lead to new interventions
- Never applied under this topic
- Here fundamental research is excluded.
- does not apply to my research
- Very clear defined, not mu area though
- Looks very clinical with no biological input.
- that is the final goal from which medicine profits. I would suggest to place this at the Center of the funding efforts
- Human iPSC and genome-editing technologies offer unprecedented opportunities to translate the wealth of genetic data from GWAS into actionable data, e.g. for disease risk prediction but also disease stratification into groups that are likely to benefit from the same therapeutic approach (whenever possible a repurposed drug). This will require intensive efforts to understand how genetic risk factors translate into pathological mechanisms. 'Simply' revealing where and when the many genes associated with disease risk are expressed and exert their function would provide valuable insights into the vulnerability of specific brain regions. ; Non pharmacological approaches (e.g. non-invasive or invasive brain stimulation) should also be explored.
- I think it should be the second priority

Question 4: "Do you think that other priorities should be included within the frame of ERANET NEURON on translational research?"

- rehabilitation
- Encouraging that scholars from the humanities also contribute.
- Implement new technological developments to cure diseases
- Therapeutic outcome, variability in therapeutic response and therapeutic failure could be a topic as well.

- Genetic neurodevelopmental encephalopathies
 - I believe all translational science is just the last step in a long sequence of fundamental research. Fundamental research needs to be strengthened by calls that address fundamental questions
 - Really translational neuroscience, from animal model to human. Finding evidence for effects of disease-related factors on biological processes across species is a fundament to move the field forwards
 - topics are fine but seems either too medical or too focused on models should have one that can include the 2 together
 - cellular and functional processes underlying neurological diseases
 - Clinical trials for neurological disorders
 - Development of better animal models. Emphasis should not be on clinical trials, the financial budget just does not allow for it
 - non-human primates (see my comment on Topic 1)
 - Neurodegenerative diseases should be included.
 - In confirm that a systems approach (low tech, high concept) and lifestyle issues are key to progress for patients.
 - Diet as prevention and treatment factor
 - epigenetic mechanisms, genomics, transcriptomics
 - Preparation for clinical development – direct translational research
 - Because I think that you must have more patient expert in your group and work more in discussion with patient more collaboration, in order to communicate more and better, and to connect with their “waiting”. I would like to see more translational research on living environment, pollutants, endocrine disruptors, pollution, living conditions and space, rhythm of life (meals, sleep, relaxation, work), sleep quality, quality of nutrition... All those elements that can improve prevention.
 - How research influences and improves health care – practical benefits
 - Large epidemiological cohorts of persons at risk are expansive but with open data, they are an excellent long-term investment. Social aspects have to be collected and analysed.
 - SRA is only disease focused – a research topic on understanding of „normal“ brain molecular, neurobiological, circuit and behavioral function is missing
 - Triggered by advances in systems neuroscience, this question has become a flash- point regarding the future of neuroscience. But the dispute is shortsighted, as even optimally charted circuits cannot be understood without knowing the functional characteristics of the neurons and synapses involved. We need a complementation of brain connectomes with detailed maps of the functional cell biology in the interconnected neurons. We need functional “synaptomes.” This is a fascinating perspective to cell biologists and an obligation. We require comprehensive, quantitative models of the protein and organelle machinery in all neuronal sub-compartments linked to their key functional features. The objective should be nerve cell models that predict the diverse functional characteristics of neurons and their synapses in vivo. Breakthroughs in cell biology—such as genome editing, single-cell transcriptomics, spatially resolved proteomics, super-resolution microscopy, and in situ cryo-electron microscopy – bring this within reach so that cell-type-specific gene expression and sub-compartment-specific protein expression, localisation, and stoichiometry can be charted. Combined with cell-type- and synapse-type-specific functional analyses based on highly selective genetic perturbations, this will yield the cell-biological understanding that is required to decipher the function of connectomes in health and disease—and to understand how the brain works.
 - Pathophysiology studies based on human samples
 - In general, many applications and work programs, in my opinion, are not perfectly translational, since the clinical part is somewhat neglected.
 - stem cells, plasticity, regeneration, degeneration, aging, extracellular vesicles
 - De-regulated protein synthesis: it is crucial for both, “Topic 1: Understanding Disease
-

Mechanisms (Cell-Based & Animal Models, Comorbidities, and Resilience)” and the Topic 2: Understanding Disease Progression (Pathology, Diagnosis, Biomarkers, Stratification).

Question 5: “Specific Priorities and Challenges on Neurological Diseases?”

- We particularly appreciate the emphasis on interactions of the brain with the rest of the body (e.g. inflammatory responses) and the role of non-neuronal brain cells which certainly have to be taken into consideration, as well as novel technologies discussed in the report.
- I think that more leeway should be given as to which specific neurological diseases should be included in the calls.
- Would consider applying
- I hope that the list is not restricted to the diseases cited (page 18 of the ERA-NET agenda). No mention of ALS and Alzheimer's.
- organ/brain interactions should be stressed. For example, eye and brain; or other organs, of course
- Within the Neurological Diseases, particular emphasis should be given to Neurodegenerative Disorders, which affect a large percentage of the population worldwide
- exemplification of some neurological diseases is a bit arbitrary or at least unnecessarily highlighting some diseases which leave the impression to be thus favoured
- See above.
- In addition to the strong emphasis on non-neuronal cells, mechanisms of plasticity could be more added, novel methods could include EM tomography, SMLM super resolution, use of native high pressure frozen tissue, correlative light and EM tomography to reveal protein interactions in brain tissue,
- Though I understand that establishing new cohorts, and conducting large scale omics studies are outside the range of activities typically supported by the NEURON joint funding scheme, deeply-phenotyped longitudinal cohorts are an

essential resource to understand the molecular and cellular mechanisms underlying neurological diseases. We need detailed disease atlases that combine multi-omics data (including at the single-cell level) and rich clinical and ‘naturalistic’ data.

Question 6: “Specific priorities and challenges on psychiatric disorders?”

- The report rightly identifies important challenges and priorities in this area.
- Same as for neurological diseases
- Would consider applying
- not concerned
- Very favourable to focus on the concepts of disease progression, especially if associated with translational approaches.
- exemplification of some psychiatric diseases is a bit arbitrary or at least unnecessarily highlighting some diseases which leave the impression to be thus favoured
- See above.

Question 7: “Specific priorities and challenges on sensory organ diseases and peripheral nervous system disorders?”

- This section captures well the important aspects.
- Same as for neurological diseases
- Leaves space for participation of researchers with focus on basic science
- not concerned
- yes, too little research is done on sensory systems; everyone seems to be interested in Alzheimer & Co., even the sensory disorders are much more prevalent
- This is a non-specific topic; we would suggest focusing on ‘Peripheral Nervous System Disorders’.
- exemplification of some sensory organ diseases is a bit arbitrary or at least unnecessarily highlighting some diseases which leave the impression to be thus favoured

Question 8: “Enabling activities of ERANET NEURON?”

- This part of the report outlines an excellent choice of areas and priorities that FENS fully supports.
- The program is timely and of great importance in Neuroscience. However, the success rate of projects is very low and should be increased.
- Not sure what the question refers to
- I can't because I don't know your real activities, you need to communicate more about it.
- We need more transparency about the funding really available from each country of previous ERANET programs. We heard of good projects with excellent ratings that were not funded because of insufficient local (i.e. national) support.
- What does that mean?? “the Enabling activities of ERANET NEURON”
- Regarding the interaction with other European Initiatives, I would like to recommend to include the LifeTime consortium. While it is currently unclear how the LifeTime activities will continue now that the CSA funding period is over, this consortium developed a Strategic Research Agenda based on artificial intelligence, with priorities for digital and biomedical technologies that largely overlap with the ones defined by the ERANET NEURON. I coordinated a working group on ‘neurological and neuropsychiatric’ diseases within LifeTime that made very similar recommendation to the European Commission. The LifeTime SRA and a corresponding whitepaper will be released in the fall 2020.
- I have no information on this

Other comments or suggestions

- Thank you very much for drawing our attention to the ERANET NEURON strategic research agenda, it is a very compelling document.
- I herewith would like to express our congratulations to this excellent SRA!
Following the continuous goal that there is always room for improvement/optimisation please find our comments in the attached questionnaire. In addition, please devote your attention to one of the major aims of EAN, namely to explicitly foster and support European scientific networks and cooperations with special emphasis on young neuroscientists. As EAN is the largest neurological society, representing 45.000 members as well as 47 European national neurological societies, I'd like to express and offer EAN's willingness to actively contribute to joint neurological scientific efforts in Europe, especially with regard to definition and development of strategic research areas. Thus, it will be a pleasure for us to discuss and elaborate on this highly matching mutual effort in more detail.

Annex 2 - Questionnaire

ERA-NET NEURON, SRA 2021-2025

Feedback on SRA

Question 1:

Are you satisfied with the first scientific priority “Topic 1: Understanding Disease Mechanisms (Cell-Based & Animal Models, Comorbidities, and Resilience)”?

Totally satisfied	Satisfied	Moderately satisfied	Not really satisfied	Unsatisfied
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments or suggestions:				
.....				
.....				

Question 2:

Are you satisfied with the second scientific priority “Topic 2: Understanding Disease Progression (Pathology, Diagnosis, Biomarkers, Stratification)”?

Totally satisfied	Satisfied	Moderately satisfied	Not really satisfied	Unsatisfied
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments or suggestions:				
.....				
.....				

Question 3:

Are you satisfied with the third scientific priority “Topic 3: Interventions (Prevention, Treatment, Care/Management)”?

Totally satisfied	Satisfied	Moderately satisfied	Not really satisfied	Unsatisfied
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments or suggestions:				
.....				
.....				

Question 4:

Do you think that other priorities should be included within the frame of ERANET NEURON on translational research?

Yes

No

If yes, please list:

.....

.....

Question 5:

Are you satisfied with the Specific Priorities and Challenges on Neurological Diseases?

Totally satisfied **Satisfied** **Moderately satisfied** **Not really satisfied** **Unsatisfied**

Comments or suggestions:

.....

.....

Question 6:

Are you satisfied with the Specific Priorities and Challenges on Psychiatric Disorders?

Totally satisfied **Satisfied** **Moderately satisfied** **Not really satisfied** **Unsatisfied**

Comments or suggestions:

.....

.....

Question 7:

Are you satisfied with the Specific Priorities and Challenges on Sensory Organ Diseases and Peripheral Nervous System Disorders?

Totally satisfied **Satisfied** **Moderately satisfied** **Not really satisfied** **Unsatisfied**

Comments or suggestions:

.....

.....

Question 8:

Are you satisfied with the Enabling activities of ERANET NEURON?

Totally satisfied	Satisfied	Moderately satisfied	Not really satisfied	Unsatisfied
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments or suggestions:

.....

.....

Organisation information

Organisation or research team name

.....

Type of organisation

Professional society

Patient organisation

Research team

Country

.....

Size of the representation (members)

Less than 100

Less than 500

Less than 1 000

Less than 2 000

Less than 5 000

Less than 10 000

Over 10 000

Email

.....

Do you want to receive all new information about ERANET NEURON?

Yes

No

Imprint

Published by ERA-NET NEURON
German Aerospace Center (DLR)
Project Management Agency in DLR
Health Research
Heinrich-Konen-Str. 1
53227 Bonn
Germany

Internet: <http://www.neuron-eranet.eu/en/38.php>
E-Mail: info@neuron-eranet.net

October 2020

Layout

sku:l communication
Michaela Richter
51674 Wiehl
www.sku-l.de

Edited by

DLR-PT Project Management Agency,
Health Research, Germany
INSERM, Paris, France

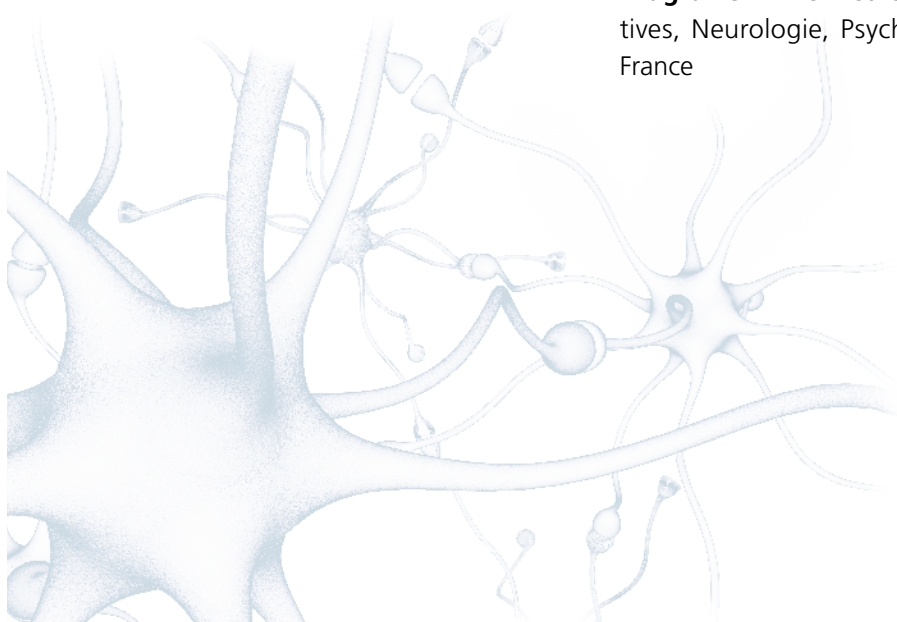
Photo Credits

Title:

AdobeStock_169698038 | Adobe-Stock_289516045 |
AdobeStock_144205619 | Shutterstock_129508265 |
Neurosphere, ChromlSyn consortium, Eloisa Herrera,
Instituto de Neurociencias, Universidad Miguel
Hernández, Campus de San Juan, Sant Joan
d'Alacant, Alicante, Spain | CA1, ChromlSyn con-
sortium, Angel Barco, Instituto de Neurociencias,
Universidad Miguel Hernández, Campus de San
Juan, Sant Joan d'Alacant, Alicante, Spain | Rat
cortical neuron, AxonRepair consortium, Andrew
Kaplan, Alyson Fournier, The Neuro (Montreal
Neurological Institute-Hospital), McGill University,
Montreal, Canada | MRT scanning observations,
BIOAX-TBI consortium, Karl Zimmerman, Imperial
College London, UK | Hippocampus, ImprVision
consortium, Benedikt Berninger, Johannes Guten-
berg University Mainz & Focus Program Translational
Neuroscience, Germany | Labelled neurons, Syn-
Pathy consortium, Olivier Thoumine, University of
Bordeaux, France | Researcher's instrumental fine
tuning, SILENCE consortium, Ralph Schlapbach &
Bernd Roschitzki, ETH Zurich, Switzerland | Blood-
brain barrier of the CNS, MICRO-MET consortium,
Ari Waisman, Johannes Gutenberg University
Mainz, Germany

Page 3, 7, 19: © Shutterstock_129508265

Diagrams: ITMO Neurosciences, Sciences cogni-
tives, Neurologie, Psychiatrie, INSERM, Aviesan,
France



www.neuron-eranet.eu