SCIENTIFIC COMMITTEE
Ivana Munitić & Miranda Mladinić Pejatović (Department of Biotechnology, University of Rijeka, Croatia)
Emanuele Buratti (ICGEB, Trieste, Italy)
Jasna Kriz & Jean-Pierre Julien (Laval University, Quebec, Canada)
Ervina Bilić (Clinical Hospital Center Zagreb, Croatia)
Vladimira Vuletić (Clinical Hospital Center Rijeka, Croatia)
Srećko Gajović & Dinko Mitrečić (University of Zagreb School of Medicine, Croatia)
Pavle Andjus (University of Belgrade, Serbia)
Jasenka Mršić-Pelčić (Faculty of Medicine, Rijeka, Croatia)

ORGANIZING COMMITTEE
Jelena Ban, Katarina Bulić, Marin Dominović, Josip Peradinović, Nikolina Prtenjača, Toni Franjkić, Zrinko Baričević, Ante Maslač, Sara Moržan & Marta Kolarić (Department of Biotechnology, University of Rijeka, Croatia)
Tomislav Pavlešić (University of Rijeka, Croatia)
Andrea Markovinović (King’s College London, London, UK)

VENUE LOCATION
University Campus Rijeka, Lecture room 003 @ Faculty of Civil Engineering
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.00 - 17.00</td>
<td>Registration</td>
</tr>
<tr>
<td>17.00 - 17.15</td>
<td><strong>Opening ceremony</strong> (Introductory speeches by the Rectorate, organizers &amp; ALS Society of Canada)</td>
</tr>
<tr>
<td>17.15 - 18.00</td>
<td><strong>Plenary talk by Michael J. Strong</strong> (President of the Canadian Institutes of Health Research &amp; Distinguished University Professor at Western University, London, Ontario, Canada): SARS-COV-2, global aging and neurodegeneration: Is this the perfect storm?</td>
</tr>
<tr>
<td>18.15 - 22.00</td>
<td><strong>Welcome cocktails at the University campus</strong> (location: Akvarij)</td>
</tr>
</tbody>
</table>

**FRIDAY, July 1**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.30 - 9.00</td>
<td>Registration, continued</td>
</tr>
<tr>
<td>9.00 - 11.00</td>
<td><strong>Session 1</strong> (Chairs: E. Buratti, P. Andjus): <strong>ALS/FTD genetics and mechanisms</strong></td>
</tr>
<tr>
<td>9.00 - 9.25</td>
<td><strong>Pietro Fratta</strong> (University College London, London UK): TDP-43 depletion and cryptic exons: a therapeutic opportunity for ALS</td>
</tr>
<tr>
<td>9.25 - 9.50</td>
<td><strong>Boris Rogelj</strong> (Department of Biotechnology, Jozef Stefan Institute): C4G2 repeat RNA from ALS/FTD-associated mutation in C9orf72 disrupts translation</td>
</tr>
<tr>
<td>9.50 - 10.10</td>
<td><strong>Laura Pasetto</strong> (Department of Neuroscience, Mario Negri Institute for Pharmacological Research, Milano, Italy): Defective cyclophilin A induces TDP-43 proteinopathy: implications for ALS and FTD</td>
</tr>
<tr>
<td>10.10 - 10.35</td>
<td><strong>Marco Baralle</strong> (ICGEB, Trieste, Italy): Physiological tissue-specific and age-related reduction of mouse TDP-43 levels is regulated by epigenetic modifications</td>
</tr>
<tr>
<td>10.35 - 10.55</td>
<td><strong>Cristian Droppelmann</strong> (Western University, London, Ontario, Canada): A fragment of the RNA-binding protein RGNEF suppresses TDP-43 toxic phenotype in an animal model of ALS</td>
</tr>
<tr>
<td>11.00 - 11.30</td>
<td><strong>Coffee break</strong></td>
</tr>
<tr>
<td>11.30 - 13.30</td>
<td><strong>Session 1, continued</strong> (Chairs: E. Buratti &amp; P. Andjus)</td>
</tr>
<tr>
<td>11.30 - 11.55</td>
<td><strong>Clotilde Lagier-Tourenne</strong> (Harvard Medical School): Emerging therapeutic targets in TDP-43 proteinopathies</td>
</tr>
<tr>
<td>11.55 - 12.15</td>
<td><strong>Dragomir Milovanović</strong> (German Center for Neurodegenerative Diseases, Berlin, Germany): The emerging roles of phase separation in the organization and dynamics of RNA-containing granules in ALS</td>
</tr>
<tr>
<td>12.15 - 12.40</td>
<td><strong>Metka Glavač-Ravnik</strong> (Faculty of Medicine, University of Ljubljana, Slovenia): Genetic variability of inflammation and oxidative stress genes affects the progression of disease and survival of patients with ALS</td>
</tr>
</tbody>
</table>
12.40 - 13.05  Richard Robitaille (Université de Montréal): Neuromuscular junctions a therapeutic target in ALS
13.05 - 13.25  Andrea Markovinović (Department of Basic and Clinical Neuroscience, King's College London, London, UK): There’s something wrong with my MAM; ER-mitochondria signaling and ALS/FTD
13.30 - 15.00  Lunch
15.00 - 17.00  Session 2 (Chairs: B. Rogelj & P. Fratta): Proteinopathy in ALS/FTD
15.00 - 15.25  Emanuele Buratti (ICGEB, Trieste, Italy): Importance of hnRNP proteins as ALS/TDP-43 disease modifiers
15.25 - 15.50  Neil Cashman (University of British Columbia, Canada): Novel Antibody and Intrabody therapeutics for ALS
15.50 - 16.10  Heather Durham (McGill University, Canada): Challenges with approaches to restoring proteostasis in ALS/FTD-online
16.10 - 16.30  Christine Vande Velde (CRCHUM & Université de Montréal, Canada): TDP-43 mediated regulation of RNA binding proteins in ALS-online
16.30 - 16.55  Jean-Pierre Julien (CERVO Brain Research Center & Department of Psychiatry and Neurosciences, Laval University, Quebec, Canada): Antibody approaches to target TDP-43 proteinopathy
17.00 - 19.00  Poster session with coffee & cookies
19.00 - 23.00  Guided walk to Trsat castle & Dinner for invited speakers & organizing committee in Trsatica 🇨🇦 Canada day celebration with Canadian friends in Croatia!

SATURDAY, July 2

9.00 - 11.00  Session 3 (chairs: J-P. Julien & I. Munitić): Immunity in ALS/FTD
9.00 - 9.30  Michal Schwartz (Weizmann Institute of Science, Rehovot, Israel): A transformed view of brain-immune system relationships: Immunotherapy to harness the immune system to help defeating neurodegenerative disease
9.30 - 10.00  Jasna Kriz (CERVO Brain Research Center & Department of Psychiatry and Neurosciences, Laval University, Quebec, Canada): Translational regulation of innate immune response in ALS
10.00 - 10.30  Severine Boillee (INSERM U1127, CNRS UMR-7225; Sorbonne University, Brain and Spinal cord Institute, Paris, France): Implication of microglia and peripheral macrophages in ALS
10.30 - 10.55  Giovanni Nardo (Department of Neuroscience, Mario Negri Institute for Pharmacological Research, Milano, Italy): Immune response in the peripheral nervous system and skeletal muscles is pivotal to counteract ALS
11.00 - 11.30  Coffee break
11.30 - 11.55  Session 3, continued (chairs: J-P. Julien & I. Munitić)
11.30 - 11.55  Pavle Andjus (Faculty of Biology, University of Belgrade, Belgrade, Serbia): Immunoglobulins G - from humoral factors to biomarkers in ALS
11.55 - 12.20  Caterina Bendotti (Department of Neuroscience, Mario Negri Institute for Pharmacological Research, Milano, Italy): Loss of C9orf72 impairs the peripheral nervous system and anticipates symptoms in ALS mice
12.20 - 12.55  Ilija Brizić (Center for Proteomics, Faculty of Medicine, University of Rijeka, Croatia): Glial cell adaptation to latent cytomegalovirus infection in the CNS
12.55 - 13.15  Ali Jawaid (BRAINCITY: Center of Excellence for Neural Plasticity and Brain Disorders, Nencki Institute of Experimental Biology, Warsaw, Poland): Putting Brains on a Diet: Targeting Pathological Aggregation in Neurodegenerative Disorders via Metabolism
13.15 - 13.30  Gabór Mórotz (King’s College London, London, UK): Disruption of ER mitochondria tethering and signaling in C9orf72-associated FTD and ALS
13.30 - 15.00  Lunch
15.00 - 17.00  Session 4 (chairs: N. Cashman & V. Vuletic): Clinical studies, biomarkers & emerging therapies in ALS/FTD
15.00 - 15.20  Angela Genge (Montreal Neurological Institute and Hospital, Montreal, Canada): Update on Clinical Trials-online
15.20 - 15.50  Letizia Mazzini and Fabiola De Marchi (ALS Center, Department of Neurology, Eastern Piedmont University, Maggiore della Carità Hospital, Novara): Prospects for the Future of Stem Cells Therapy in ALS & Long-term survival of participants with the mesenchymal stromal stem cells transplantation in ALS (awarded talk) - online+live
15.50 - 16.15  Stanley Appel (Neurological Institute, Weill Cornell Medical College, Houston, USA): Regulatory T Lymphocytes Attenuate Peripheral Oxidative Stress and Acute Phase Proteins in ALS-online
16.15 - 16.40  Robert Bowser (Barrow Neurological Institute, Phoenix, USA): Challenges of measuring TDP-43 in human biofluids
16.40 - 17.00  Zorica Stevic (Clinic of Neurology University Clinical Centre of Serbia, Belgrade): Chitotriosidase in CSF as biomarker for ALS
18.30 - 20.00  Swim & Walk for Brain Health @ Kostrena beach
20.00 - 22.30  Drinks and snacks in Kostrena Yacht Club Galeb
SUNDAY, July 3

9.00 - 11.00 | Session 5 (chairs: J. Križ & A. Markovinović): Related brain disorders
9.00 - 9.25 | Jason Cannon (Purdue University, USA): Role of environmentally induced mitophagy alterations in neurodegeneration
9.25 - 9.50 | Vladimira Vuletić (Clinical Hospital Centre, Rijeka): The role of microbiota in Parkinson’s disease
9.50 - 10.15 | Silva Katušić Hećimović (Ruđer Bošković Institute, Zagreb, Croatia): Deciphering molecular links between Alzheimer’s disease and Niemann-Pick type C disease
10.15 - 10.35 | Srečko Gajović (Croatian Institute for Brain Research, University of Zagreb School of Medicine, Zagreb, Croatia): In vivo imaging of mice after ischemic brain lesion allows insight in time dependent processes of damage and repair
10.35 - 11.00 | Dinko Mitrečić (Croatian Institute for Brain Research, University of Zagreb School of Medicine, Zagreb, Croatia): Transplantation of stem cells in animal model of stroke reduces cell death-online
11.00 - 11.30 | Coffee break

11.30 - 12.30 | AWARDED YOUNG RESEARCHER TALKS (chairs: C. Bendotti & J. Cannon)
Marta Cozzi (University of Milan, Italy): Investigating the molecular mechanisms involved in KIF5A-related neurodegeneration
Jerneja Nimac (Jožef Stefan Institute, Ljubljana, Slovenia): TDP-43 interactome changes induced by mislocalization
Alp Yiğit Özdemir (Charles University, Department of Physiology, Prague, Czechia): Comparison of the Different Isoforms of Vitamin E Against Amyloid Beta-induced Neurodegeneration
Paride Schito (San Raffaele Hospital, Milano): Diagnostic and prognostic performance of serum biomarker in upper motor neuron syndromes
Sara Milani (King’s College London, London, UK): Targeting TDP-43 Autoregulation for Therapeutic Benefit In ALS-FTD
Mubashshir Ali (Jamia Hamdard University): N-Acetyl Cysteine ameliorates mitochondrial dysfunction in ischemic injury via attenuating Drp-1 mediated mitochondrial autophagy

12.30 - 13.00 | ONLINE SELECTED SPEED TALKS
Sandra Martín-Guerrero (King’s College London, London, UK): Essential role of the PTPIP51 coiled-coil domain in VAPB binding and ER-mitochondria signaling
Cassandra Margotta (Mario Negri Institute for Pharmacological Research, Milano, Italy): Compensatory myogenesis and acetylcholine receptor clustering delay symptoms onset and progression in SOD1 mutant mice
Jessica D’Agostino (Mario Negri Institute for Pharmacological Research, Milano, Italy): Contingent intramuscular boosting of P2XR7 axis improves motor function in transgenic ALS mice

13.00 - 13.30 | ROUNDTABLE: Meeting recap & Outstanding questions & challenges
11.30 - 13.30 SATELLITE SYMPOSIUM: 3rd Meeting of Basic Researchers & Clinicians Working On ALS (Croatia/Slovenia); chair: Dr. Ervina Bilić

11.30 - 11.45 Ervina Bilić (Medical School University of Zagreb and Clinical Hospital Centre Zagreb, Croatia): Strategy and activities of ALS Centre Zagreb

11.45 - 12.00 Blaž Koritnik (University Medical Centre Ljubljana, Slovenia): The impact of multidisciplinary care team on survival of Slovenian patients with amyotrophic lateral sclerosis

12.00 - 12.15 Mira Bučuk (Department of Neurology, Clinical Hospital Center Rijeka, Faculty of Medicine, Rijeka): Amyotrophic lateral sclerosis: how to deal with it?

12.15 - 12.25 Katarina Vogelnik (Institute of Clinical Neurophysiology, University Medical Centre Ljubljana): Analysis of involuntary movements in patients with ALS.

12.25 - 12.35 Hrvoje Bilić (Department of Neurology Clinical Hospital Center Zagreb, University of Zagreb School of Medicine): "Are we becoming familiar with familial and young onset ALS?"

12.35 - 13.30 Roundtable: Dr. Janez Zidar & Dr. Ervina Bilić

1. How did we treat people with ALS before? What is the modern (multidisciplinary) approach?
2. Where has most of the progress been made?
3. What worries us the most?
4. What future do we see for this field of neurology?
5. How can CRO-SLO clinicians and scientists improve their collaborations (project proposals, articles, personnel exchanges, etc.)

13.30 - 13.45 Award for best young researcher presentation & best NeuroArt Contest Artwork

Closing remarks by the organizers & chancellor of the University of Rijeka prof. dr. Snježana Prijić - Samaržija

AFTERNOON (optional): Trip to Kastav, Opatija & Kvarner Bay
1. **Monika Berecki** (Laboratory for Regenerative Neuroscience, Croatian Institute for Brain Research, University of Zagreb School of Medicine, Zagreb, Croatia): Lentivirus-mediated gene modifications in mouse brain neurons and astrocytes

2. **Danae Campos-Melo** (Molecular Medicine Group, Robarts Research Institute, Schulich School of Medicine & Dentistry, Western University, London, Ontario, Canada): CircRNAs in Amyotrophic Lateral Sclerosis and metabolic stress

3. **Elena Casarotto** (Dipartimento di Scienze Farmacologiche e Biomolecolari (DiSFeB), Department of Excellence 2018-2022, Università degli Studi di Milano, Milano, Italy): How PQC inhibition modulates miRNA loading in large and small extracellular vesicles

4. **Anna A. Chami** (CERVO Brain Research Centre, Laval University, Quebec, Canada): Intravenous injection of AAV encoding scFv antibody to target TDP-43 proteinopathy

5. **Andrea Saul Costa** (University of Eastern Piedmont, Novara, Italy): Identification of new variants in patients with ALS or other Neurodegenerative Disorders by whole genome sequencing data

6. **Urša Čerček** (Department of Biotechnology, Jožef Stefan Institute, Ljubljana, Slovenia & Graduate School of Biomedicine, Faculty of Medicine, University of Ljubljana, Ljubljana, Slovenia): ALS/FTD-associated C9orf72 C4G2 repeat RNA disrupts phenylalanine tRNA aminoacylation

7. **Toni Franjkić** (Department of Biotechnology, University of Rijeka, Rijeka, Croatia): Assessing pathogenicity of OPTN variants in ALS and glaucoma by bioinformatic analysis

8. **Ismail T. Gbadamosi** (Laboratory for Translational Research in Neuropsychiatric Disorders, Center of Excellence for Neuronal Plasticity and Brain Disorders, Institute of Experimental Biology Marcei Nencki, Warsaw, Poland): Role of Metabolism in TDP-43 Pathology and its Down-Stream Toxicity

9. **Dominik Hamer** (Croatian Institute for Brain Research, University of Zagreb School of Medicine, Zagreb, Croatia): “We can see clearly now the brain is washed” – Visualizing neurons and blood vessels in the cleared mouse brain using fluorescence microscopy

10. **Tamara Janković** (Department of Basic and Clinical Pharmacology and Toxicology, Faculty of Medicine, University of Rijeka, Croatia): Single moderate traumatic brain injury in mice induces transient acute changes in the cortical iNOS expression and its cytoplasmic co-localization with TDP-43

11. **Wenanlan Jin** (University College London, London, UK): Characterization of FUSdelta14-ALS mouse model

12. **Fran Krstanović** (Center for Proteomics, Faculty of Medicine, University of Rijeka): Differential role of neurons and glial cells in cytomegalovirus infection and immune control

13. **Antea Kršek** (Faculty of medicine, University of Rijeka, Rijeka, Croatia): Flail arm syndrome, a form of ALS with slow progression


15. **Marta Medija** (Department of Biotechnology, University of Rijeka, Rijeka, Croatia): The effect of quercetin on the developmental consequences of methamphetamine in fruit fly
16. **Angelica Mele** (ALS Center, Neurology Unit, Department of Translational Medicine, University East Piedmont, Novara, Italy): Evaluation of plasmatic and cellular redox state parameters in patients affected by Amyotrophic Lateral Sclerosis

17. **Christian Memo** (SISSA, Trieste, Italy): Inflammatory exosomes transfer danger signal and induce glial dysfunctional calcium dynamics in naive spinal cultured explants

18. **Tina Miloš** (Division of Molecular Medicine, Ruđer Boškovic Institute, Zagreb, Croatia): Brain-derived neurotrophic factor, amyloid β1–42 and Apolipoprotein E genotype: Potential biomarkers for the differential diagnosis between frontotemporal dementia and Alzheimer's disease

19. **Helena Motaln** (Jožef Stefan Institute, Department of Biotechnology, Ljubljana, Slovenia): FUS interactome

20. **Veronica Noches Gallardo** (Molecular Medicine Group, Robarts Research Institute, Schulich School of Medicine & Dentistry, Western University, London, Ontario, Canada): The RRM2 domain of TDP-43 is essential for its interaction with the Leucine-rich domain of Rho Guanine Nucleotide Exchange Factor (RGNEF)


22. **Josip Peradinović** (Department of Biotechnology, University of Rijeka, Rijeka, Croatia): Characterization of optineurin insufficiency mice during ageing

23. **Beatrice Piola** (University of Eastern Piedmont, Dept. of Health Sciences, Novara, Italy): Analysis of putative regulatory variants from whole genome sequencing data of 140 patients affected by neurodegenerative disorders by massively parallel reporter assay

24. **Amélie Poulin-Brière** (CERVO Brain Research Centre, Laval University, Quebec, Canada): Anti-TDP-43 antibody effect in models of sporadic ALS induced by ALS-patients CSF infusion

25. **Nikolina Prtenjača** (Department of Biotechnology, University of Rijeka, Rijeka, Croatia): Crosstalk of TDP-43 and Optineurin in myeloid cells

26. **Ana Rastija** (Division of Molecular Medicine, Ruđer Boškovic Institute, Zagreb): Endosomal fractionation of NPC1 mouse brain regions reveals sequestration of substrates of the Alzheimer's protease BACE1 within early endosomes - a mechanistic explanation for the amyloid-beta accumulation in NPC disease brains

27. **Tommaso Russo** (Department of Neurology & Neuropathology Unit, Institute of Experimental Neurology (INSPE), Division of Neuroscience, IRCCS San Raffaele Scientific Institute, Milan, Italy): NEK-1 variants in a cohort of Italian ALS patients

28. **Tea Sinožić** (Department of Biochemistry and Molecular and Structural Biology, J. Stefan Institute, Ljubljana, Slovenia): Structural aspects and functional effects of the mutations associated to Type B Kufs disease (CLN13)

29. **Veronika Stoka** (Department of Biochemistry and Molecular and Structural Biology, J. Stefan Institute, Ljubljana, Slovenia) Human cathepsin F: an unusual cysteine protease involved in Type B Kufs disease (CLN13)
30. **Pinky Sultana** (Department of Physiology Faculty of Science, Charles University, Prague, Czechia): Trappc9 deficiency in mice impairs learning and memory by causing imbalance of dopamine D1 and D2 neurons

31. **Robert Szabla & Brianna Kaplanis** (Western University, London, Canada): Structural characterization of the TDP43 / RGNEF hetreooligomer in neuron inclusion bodies

32. **Barbara Tedesco** (Department of Pharmacological and Biomolecular Sciences, Department of excellence 2018-2022, University of Milan & Unit of Medical Genetics and Neurogenetics, Fondazione IRCCS Istituto Neurologico Carlo Besta, Milan, Italy): Mechanism of paroxetine-mediated autophagic induction in cell models of ALS/FTD

33. **Martina Tosi** (University of Eastern Piedmont UPO, Novara, Italy): A multi-omics approach to study monozygotic twins discordant for amyotrophic lateral sclerosis

34. **Lea Vidatic** (Ruder Boskovic Institute, Zagreb, Croatia): Genetic depletion of BACE1 alters neuroinflammation in a knock-in mouse model of Niemann-Pick type C disease

35. **Barbara Vuić** (Division of Molecular Medicine, Ruđer Bošković Institute, Zagreb, Croatia): TNF-α, IL-1α and IL-10 - potential inflammatory biomarkers in Alzheimer’s disease

36. **Lucija Vrban** (Biomolecular Structure and Function Group, Department of Biotechnology, Rijeka, Croatia) Computational Study of the Monoamine Oxidase B Mechanism-Based Irreversible Inhibitors

37. **Vera Župunski** (Faculty of Chemistry and Chemical Technology, University of Ljubljana, Slovenia): hnRNPH in nuclear G4C2 foci and cytoplasmic stress granules of C9ORF72 ALS and FTD

---

**Saving our trees 😊 → Please scan:**

**for Abstract Book:**

**& Website:**

---

**Symposium Logo & Visuals: Maro Pitarević**

**Program Editing & Design: Ivana Munitić & Marta Kolarić**
Our special social events

Science & Art
with
Jelena Ban & Sandra Debanić

talk & exhibiton
GLOWING GLIA
A glue between science and art
Thursday, June 23, 18:00 – 18:15 (reception at the reception team) and 18:30-20:30 (biotech reception)

Join us!
SWIM AND WALK
FOR BRAIN HEALTH
KOSTRENA, 02.07.2022,
VELI JARAK BEACH, SAILING CLUB GALEB, 19H

Our sponsors & donators

jgl Sense the Life
BIOMEDICA
TECNIPLAST
MMK TRGOVINA D.O.O.
Canada
NEURODEG
SZSUR*
HRVATSKO DRUŠTVO FARMAKOLOGA
CROATIAN PHARMACOLOGICAL SOCIETY

10