January 4th, 2021

CURRICULUM VITAE

1. PERSONAL INFORMATION

Name:	**Silva Katušić Hećimović**
Academic degree:	**PhD**
Current position:	**Head of the Laboratory for Neurodegenerative Disease Research**, Ruđer Bošković Institute
Address:	Laboratory for Neurodegenerative Disease Research Division of Molecular Medicine Ruđer Bošković Institute Bijenička c. 54, 10000 Zagreb - Croatia Tel: +385-1-4571327 E-mail: silva.hecimovic@irb.hr

2. EDUCATION

09/1991-	B.Sc., Faculty of Food Technology and Biotechnology, University of Zagreb, Croatia
04/1995 -	M.Sc., Faculty of Science, University of Zagreb, , Croatia
03/2000-	Ph.D., Faculty of Food Technology and Biotechnology, University of Zagreb and Ruder Boskovic Institute, Croatia
2001 – 2004	Postdoc, Washington University School of Medicine, St. Louis, MO, USA

3. APPOINTMENTS AND INSTITUTIONS

1991 - 1995	Young Research Assistant, Department of Biochemistry, Faculty of Food Technology and Biotechnology, University of Zagreb, Zagreb, Croatia
1995 - 2000	Research Assistant, Division of Molecular Medicine, Rudjer Boskovic Institute, Zagreb, Croatia
2000 - 2001	Senior Research Assistant, Division of Molecular Medicine, Ruđer Bošković Institute, Zagreb, Croatia
2001- 2004	Research Associate, Department of Psychiatry, Washington University School of Medicine, St. Louis, MO, USA
2004 - 2008	Research Associate, Division of Molecular Medicine, Rudjer Boskovic Institute, Zagreb, Croatia
2009 - 2016	Head of the Laboratory of Molecular Neuropharmacology, Division of Molecular Medicine, Rudjer Boskovic Institute, Zagreb, Croatia
2013 – 2017	Senior Research Associate, Division of Molecular Medicine, Rudjer Boskovic Institute, Zagreb, Croatia
2016 - present	**Head of the Laboratory for Neurodegenerative Disease Research**, Division of Molecular Medicine, Rudjer Boskovic Institute, Zagreb, Croatia
2017 – present	**Senior scientist**, Division of Molecular Medicine, Rudjer Boskovic Institute, Zagreb, Croatia

4. RESEARCH PROJECTS (in the past 5-years: 2015-2020)

PI Projects

1. **COGITO programme, Croatian-French research project (2019-2021)**
   Title: The molecular links between lipidome, brain vulnerability and apolipoprotein E
2. **Croatian Science Foundation (CSF) – IP-2016-06-2799 (2017-2021)**
   Title: Molecular mechanism(s) of neurodegeneration in Niemann-Pick type C disease

3. **Croatian Science Foundation (HRZZ) - "PhD mentorship project" (2015-2018) & (2018-2022)**
4. **Croatia-Serbia Cooperation in Science and Technology (2016-2018)**
   Title: Elucidating BACE1-substrate processing and distribution in a transgenic mouse model of Alzheimer's disease and their potential role in the disease pathogenesis
5. **International bilateral project between DAAD (Germany) and the Ministry of Science, Education and Sports of the Republic of Croatia (2016-2018)**
   Title: Elucidating BACE1 as a potential target for treating Niemann-Pick type C disease
6. **FP7-PEOPLE-2013-IEF (Marie Curie) (2014-2016)**
   Title:Presenilin 2 - a protector against Alzheimer's disease
7. **Swiss National Science Foundation - SCOPES: Joint Research Project (2014-2016)**
   Title: The molecular links between cholesterol homeostasis, membrane trafficking and Alzheimer's disease
8. **Unity Through Knowledge Fund – UKF (2013-2015)**
   Title: Lysosomal dysfunction as a common mechanism of neurodegenerative diseases

Collaborative Projects

9. **Croatian Science Foundation (CSF) - IP-2019-04-3504 (2019-2023)**
   Title: Cellular parabiosis: the role of cell-to-cell communication in phenotypic suppression
   Principal Investigator: dr. Katarina Trajković (MedILS, Split)
10. **Croatian Science Foundation (CSF) - #9386 (2014-2018)**
    Title: Genetic mechanisms of lysosomal dysfunction in Parkinson's disease
    Principal Investigator: dr. Fran Borovečki (Medical School, Univesity of Zagreb)
11. **EU – COST Action – BM1202** - European Network on Microvesicles and Exosomes in Health and Disease (ME-HAD) (2015.-2017.)
12. **EU – COST Action – BM1402** - Development of a European network for preclinical testing of interventions in mouse models of age and age-related diseases (MouseAGE) (2015.-2017.)

5. SUPERVISION OF DOCTORAL AND POSTDOCTORAL STUDENTS

2006 – 2019 supervised 12 graduate/ 8 doctoral/ 3 postdoctoral students

8 PhD students

- 5 graduated: **Iva Petek Tarnik**, PhD defended in March 2010; **Martina Malnar**, PhD obtained in June 2012; **Marko Košiček**, PhD obtained in May 2013; **Stjepko Čermak**, PhD obtained in April 2016; **Kristina Dominko**, PhD obtained in January 2020.

- 3 to be graduated: Ana Rastija, 2nd year PhD student (funded by the Croatian Science Foundation - DOK-1-2018), **Lea Vidatić**, 2nd year PhD student (funded by the Ministry of Science and Education) and **Sandra Tipurić**, 1st year PhD student

3 postdoctoral students: Martina Malnar (2013-2018), **Marko Košiček** (2014-2018), **Mirsada Čaušević** (2014-2016)

6. TEACHING

Course „Molecular biology of neurodegenerative diseases", Doctoral study of Biology, Faculty of Science, University of Zagreb, Croatia

Course „Genetics of neurodegenerative diseases", Doctoral study Molecular Biosciences, University of Osijek, University of Dubrovnik and Ruder Boskovic Institute

7. SCIENTIFIC AWARDS

1989	IAESTE Fellowship for the exchange of students
1991	Dean's award for the best student work, University of Zagreb
2001-2002	Fulbright Postdoctoral Fellowship
2002-2004	The John Douglas French Alzheimer's Foundation Postdoctoral Fellowship
2008	Award „Josip Juraj Strossmayer" (HAZU/ Zagrebački velesajam) for the best publisher enterprice in 2008: book "Metode u molekularnoj biologiji".

8. REVIEW BOARDS (Grant agencies)

Alzheimer Forschung Initiative (AFI), Germany; European Comission / Horizon 2020 (Expert Evaluator) EU; Health and Medical Research Fund (HMRF), Food and Health Bureau, Hong Kong; Portuguese Foundation for Science and Technology – FCT; Scientific board for Biomedicine, Croatian Science Foundation; The Netherlands Organisation for Health Research and Development (ZonMw) and the National Initiative Brain & Cognition (NIHC), Netherlands; The Research Foundation Flanders (FWO).

9. MEMBERSHIP IN SCIENTIFIC SOCIETIES

Croatian Society of Biochemistry and Molecular Biology

MAJOR SCIENTIFIC ACHIEVEMENTS

In the past 5-years: 2015-2020

It is intriguing that the most common neurodegenerative disorder Alzheimer's disease (AD) (caused by genetic and environmental risk factors) shares several features with a rare monogenic recessive lipid and lysosomal storage disorder Niemann-Pick type C (NPC). These include neurodegeneration, neuroinflammation, endolysosomal dysfunction, hyperphosphorylation of tau protein, accumulation of amyloid-beta peptides and apolipoprotein ε4 isoform as a risk factor of disease progression. Thus, these two etiologically distinct neurodegenerative disorders may share common pathological pathways. Hecimovic explores common as well as specific molecular mechanisms of neurodegeneration / neuroinflammation between AD and NPC (Malnar et al. Bidirectional links between Alzheimer's disease and Niemann-Pick type C disease. Neurobiol Dis 2014). In the last five years she investigated the molecular details of Alzheimer's-like features in the cellular and mouse model of NPC, including primary mouse neuronal and non-neuronal cells. In addition, through her collaboration with Eldar-Finkelman group (Sackler School of Medicine, Tel Aviv University) and Tahirovic group (DZNE-Munich) she studied lysosomal dysfunction (Avrahami et al. Cell Signal 2020) and impaired function of microglia in NPC (Colombo et al. bioRxiv 789511, 2019), respectively. Her work points to the dysfunction of the endolysosomal pathway as a common mechanism of neurodegeneration and/or neuroinflammation. In more detail, she

1. Showed that cysteine cathepsins B and L (CtsB/L) are major regulators of lysosomal function and demonstrated that CtsB/L play a role in intracellular cholesterol trafficking and in degradation of the key AD proteins (Cermak et al. *PLoS One* 2016). Thus, enhancing the activity or levels of CtsB/L could provide a promising and a common strategy for maintaining lysosomal function and for preventing and/or treating neurodegenerative diseases.

2. Was the first to report N-glycome profiling of the lysosomal glycocalyx in NPC disease cellular model and the first to report the specific changes in the lysosomal glycocalyx in *NPC1*-null cells (changes in the N-glycosylation pattern of the lysosomal glycocalyx of *NPC1*-null vs. wt cells which involved high-mannose and sialylated N-glycans) (Kosicek et al. *Mol Cell Proteomics* 2018.). These results suggest that changes in the lysosomal glycocalyx may contribute to lysosomal (dys)function.

3. Characterized enhanced proteolysis of several substrates of the key Alzheimer's protease β-secretase (BACE1) in NPC mouse brains and in NPC mouse primary neurons (Causevic et al PLoS One 2018). She showed that trafficking defect within the endolysosomal pathway plays a key role in enhanced BACE1-proteolysis in NPC disease, suggesting that enhanced proteolysis by BACE1 could be a part of NPC disease pathogenesis. Through this manuscript she contributed to the understanding of the basic biology of BACE1 and the functional impact of cleavage of its substrates in order to better evaluate the therapeutic potential of BACE1 against AD and, possibly, NPC disease. In this manuscript she collaborated strongly with her DZNE-Munich partners (Lichtenthaler and Tahirovic groups).

4. Showed that hypercholesterolemia, induced either by cholesterol-rich diet *in vivo* in cholesterol-fed mice and *in vitro* in genetically induced cholesterol accumulation in *NPC1*-null cells, shares a common feature involving increased activity of superoxide dismutase (SOD) and mitochondrial SOD2, respectively (Dominko et al. Nutr Neurosci 2020). Moreover, she analysed whether upon cholesterol-

rich diet, different brain regions (prefrontal cortex, cortex, hippocampus, and cerebellum) show distinct vulnerability to an oxidative stress response. She demonstrated that all four brain regions analysed responded via somewhat different capacity of antioxidant defence, hippocampus showing the highest basal activity of SOD. These findings indicate that hypercholesterolemia could potentiate brain dysfunction and neurodegenerative processes via oxidative stress, and activity of mitochondrial SOD2 may play a key role in this process.

5. Together with the Eldar-Finkelman group (Sackler School of Medicine, Tel Aviv University), showed that glycogen synthase kinase-3 (GSK-3) / tuberous sclerosis complex (TSC) axis regulates lysosomal acidification (i.e. lysosomal function) via both the autophagic and endocytic pathways (Avrahami et al. Cell Signal 2020). We demonstrated that lysosomal acidification is restored by GSK-3 inhibition even in the absence of functional autophagy, and, independently of mTORC1, and is facilitated by increased endocytic traffic, which includes increased recruitment of active Rab5 into endosomes, and increased Rab7/RILP clustering into lysosomes, all processes required for late endosome maturation.

6. Through her collaboration with Tahirovic group (DZNE-Munich) In the published preliminary work Colombo et al. bioRxiv 789511; entitled “Loss of NPC1 enhances phagocytic uptake and impairs lipid trafficking in microglia” she contributed in the characterization of microglia dysfunction in NPC mouse model. We identified enhanced phagocytic uptake and impaired lipid trafficking in *Npc1-/-* microglia that precede neuronal death. To translate our findings to human disease, we generated novel ex vivo assays using NPC patients’ macrophages that displayed similar proteomic disease signatures and lipid trafficking defects as murine *Npc1-/-* microglia. This study underscores an essential role for NPC1 in immune cells and implies microglial therapeutic potential.

PUBLICATION LIST

goo.gl/uDfB2n (complete publication list)

* last and/or corresponding author

1. Peer-reviewed articles - Web of Science Core Collection (WoSCC)

1. Avrahami L, Paz R, Dominko K, **Hecimovic S**, Bucci C, Eldar-Finkelman H. (2020) GSK-3-TSC axis governs lysosomal acidification through autophagy and endocytic pathways. Cell Signal. 71:109597. doi: 10.1016/j.cellsig.2020.109597.
2. Dominko K, Dikic D, **Hecimovic S***. (2018) Enhanced activity of superoxide dismutase is a common response to dietary and genetically induced increased cholesterol levels. Nutr Neurosci. 1-13. doi: 10.1080/1028415X.2018.1511027.
3. Causevic M, Dominko K, Malnar M, Vidatic L, Cermak S, Pigoni M, Kuhn PH, Colombo A, Havas D, Flunkert S, McDonald J, Gunnersen JM, Hutter-Paier B, Tahirovic S, Windisch M, Krainc D, Lichtenthaler SF, **Hecimovic S***. (2018) BACE1-cleavage of Sez6 and Sez6L is elevated in Niemann-Pick type C disease mouse brains. PLoS One. 13(7):e0200344. doi: 10.1371/journal.pone.0200344.
4. Kosicek M, Gudelj I, Horvatic A, Jovic T, Vuckovic F, Lauc G, **Hecimovic S***. (2018) N-glycome of the lysosomal glycocalyx is altered in Niemann-Pick Type C disease model cells. Mol Cell Proteomics. pii: mcp.RA117.000129. doi: 10.1074/mcp.RA117.000129.
5. Cermak S, Kosicek M, Mladenovic-Djordjevic A, Smiljanic K, Kanazir S, **Hecimovic S***. (2016) Loss of Cathepsin B and L Leads to Lysosomal Dysfunction, NPC-Like Cholesterol Sequestration and Accumulation of the Key Alzheimer's Proteins. PLoS One. 11(11):e0167428. doi: 10.1371/journal.pone.0167428.
6. Drechsler S, Lynch MA, Novella S, González-Navarro H, **Hecimovic S**, Barini E, Tucci V, Castro RE, Vandenbroucke RE, Osuchowski M, Potter PK. (2016) With mouse age comes wisdom: A review and suggestions of relevant mouse models for age-related conditions. Mechanisms of Ageing and Development. 160:54-68. doi: 10.1016/j.mad.2016.07.005.
7. Drazic T, Vazdar K, Vazdar M, Đaković M, Mikecin A-M, Kralj M, Malnar M, **Hecimovic S**, Habus I. (2015) Synthesis of new 2-aminoimidazolones with antiproliferative activity via base promoted amino-beta-lactam rearrangement. Tetrahedron. 71:9202-15.
8. Dražić T, Sachdev V, Leopold C, Patankar JV, Malnar M, **Hecimovic S**, Levak-Frank S, Habuš I, Kratky D. (2015) Synthesis and evaluation of novel amide amino-β-lactam derivatives as cholesterol absorption inhibitors. Bioorganic & Medicinal Chemistry. 23:2353-9. doi: 10.1016/j.bmc.2015.03.067
9. Malnar M, **Hecimovic S***, Mattsson M, Zetterberg H. (2014) Bidirectional links between Alzheimer's disease and Niemann-Pick type C disease. Neurobiology of Disease. 72 Pt A: 37.
10. Dražić T, Molčanov K, Sachdev V, Malnar M, **Hecimovic S**, Patankar JV, Obrowsky S, Levak-Frank S, Habuš I, Kratky D. (2014) Novel amino-β-lactam derivatives as potent cholesterol absorption inhibitors. European Journal of Medicinal Chemistry. 87:722-734.
11. Kosicek M, Wunderlich P, Walter J, **Hecimovic S***. (2014) GGA1 overexpression attenuates amyloidogenic processing of APP in NPC1-null cells. Biochemical and Biophysical Research Communications. 450: 160-5.
12. Ting SK, Benzinger T, Kepe V, Fagan A, Coppola G, Porter V, **Hecimovic S**, Chakraverty S, Alvarez-Retuerto AI, Goate A, Ringman JM. (2014) A novel PSEN1 mutation (I238M) associated with early-onset Alzheimer's disease in an African-American woman. Journal of Alzheimers Disease. 40: 271-5.
13. Stefulj J, Peric M, Malnar M, Kosicek M, Schweinzer C, Zivkovic J, Scholler M, Panzenboeck U, **Hecimovic S***. (2013) Pharmacological activation of LXRs decreases amyloid-β levels in Niemann-Pick type C model cells. Current Pharmaceutical Biotechnology. 14: 582-93.
14. Kosicek M, **Hecimovic S***. (2013) Phospholipids and Alzheimer's disease: alterations, mechanisms and potential biomarkers. International Journal of Molecular Sciences. 14: 1310-22.

15. von Einem B, Weber P, Wagner M, Malnar M, Kosicek M, **Hecimovic S**, von Arnim C, Schneckenburger H. (2012) Cholesterol dependent energy transfer between fluorescent proteins - insights into protein proximity of APP and BACE1 in different membranes in Niemann-Pick type C disease cells. International Journal of Molecular Sciences. 13: 15801-12.

16. Mattsson N, Olsson M, Gustavsson MK, Kosicek M, Malnar M, Månsson JE, Blomqvist M, Gobom J, Andreasson U, Brinkmalm G, Vite C, **Hecimovic S**, Hastings C, Blennow K, Zetterberg H, Portelius E. (2012) Amyloid-β metabolism in Niemann-Pick C disease models and patients. Metabolic Brain Disease. 27:573-585.

17. Malnar M, Kosicek M, Lisica A, Posavec M, Krolo A, Njavro J, Omerbasic D, Tahirovic S, **Hecimovic S***. (2012) Cholesterol-depletion corrects APP and BACE1 misstrafficking in NPC1-deficient cells. Biochimica et Biophysica Acta (BBA) – Molecular Basis of Disease. 1822:1270-83.

18. Kosicek M, Zetterberg H, Andreasen N, Peter-Katalinic J, **Hecimovic S***. (2012) Elevated cerebrospinal fluid sphingomyelin levels in prodromal Alzheimer's disease. Neuroscience letters. 516:302-5.

19. Malnar M, Košiček M, Bene R, Petek Tarnik I, Pavelin S, Babic I, Brajenovic-Milic B, Hecimovic H, Titlic M, Trkanjec Z, Demarin V, **Hecimovic S***. (2012) Use of cerebrospinal fluid biomarker analysis and apolipoprotein E genotyping for improving Alzheimer's disease diagnosis in a non-specialized setting. Acta neurobiologiae experimentalis. 72: 264-71.

20. Ringman, J.M., Gylys, K.H., Medina, L.D., Fox, M., Kepe, V., Flores, D.L., Apostolova, L.G., Barrio, J.R., Small, G., Silverman, D.H., Siu, E., Cederbaum, S., **Hecimovic S**, Malnar M, Chakravertyg, S., Goate, A.M., Bird, T.D. and Leverenz, J.B. (2011) Biochemical, neuropathological, and neuroimaging characteristics of early-onset Alzheimer's disease due to a novel PSEN1 mutation. Neuroscience Letters. 487: 287-92.

21. Ahel M, Antičić T, Balog T, Bilić N, Guberina B, **Katušić Hećimović S**, Jerić I, Klanjšček T, Legović T, Musić S, Sabljić A, Smital T, Smith D, Šmuc T, Štefančić H, Weber I, Žinić M, Ramljak D, Krajcar S. (2010) The Ruder Boskovic Institute – Today and Tomorrow. Periodicum Biologorum 112: 369-374.

22. Kosicek M, Kirsch S, Bene R, Trkanjec Z, Titlic M, Bindila L, Peter-Katalinic J, **Hecimovic S***. (2010) Nano-HPLC-MS analysis of phospholipids in cerebrospinal fluid of Alzheimer's disease patients-a pilot study. Analytical and Bioanalytical Chemistry. 98: 2929-37.

23. Malnar M, Kosicek M, Mitterreiter S, Omerbasic D, Lichtenthaler SF, Goate A, **Hecimovic S***. (2010) Niemann Pick type C cells show cholesterol dependent decrease of APP expression at the cell surface its increased processing through the β-secretase pathway. Biochimica et Biophysica Acta (BBA) – Molecular Basis of Disease. 1802: 682-91.

24. Kosicek M, Malnar M, Goate A, **Hecimovic S***. (2010) Cholesterol accumulation in Niemann Pick type C (NPC) model cells causes a shift in APP localization to lipid rafts. Biochemical and Biophysical Research Communications. 393: 404-9.

25. Đokić H, Barišić I, Čulić V, Lozić B, **Hecimovic S***. (2008) Haplotype and AGG Interspersion Analysis of the FMR1 Alleles in Croatian Population: no founder effect detected in patients with fragile X syndrome. Human Biology. 80: 581-87.

26. Klepac N, Relja M, Klepac R, **Hecimovic S**, Babić T, Trkulja V. (2007) Oxidative stress parameters in plasma of Huntington's disease gene carriers and healthy subjects: a cross-sectional study. Journal of Neurology. 254:1676-83.

27. Song H, **Hecimovic S**, Goate A, Hsu FF, et al. (2004) Characterization of N-terminal processing of group VIA phospholipase A2 and of potential cleavage sites of amyloid precursor protein constructs by automated identification of signature peptides in LC/MS/MS analyses of proteolytic digests. Journal of The American Society for Mass Spectrometry. 15:1780-93.

28. **Hecimovic S**, Wang J, Martinez M, Goate A. (2004) Mutations in APP have independent effects on Aβ and CTFβ generation. Neurobiology of Disease. 17: 205-218. IF: 5.121

29. Cam JA, Zerbinatti CV, Knisely JM, **Hecimovic S**, Yonghe L, Bu G. (2004) The LDL receptor-related protein 1B retains APP at the cell surface and reduces amyloid-β peptide production. Journal of Biological Chemistry. 279: 29639-46.

30. Wang J, Brunkan AL, **Hecimovic S**, Walker E, Goate A. (2004) Conserved "PAL" sequence in presenilins is essential for γ-secretase activity, but not required for formation or stabilization of γ-secretase complex. Neurobiology of Disease. 15: 654-666.

31. Schroeter EH, Ilagan MXG, Brunkan AL, **Hecimovic S**, Li Y-M, Xu M, Lewis HD, Saxena MT, De Strooper B, Coonrod A, Tomita T, Iwatsubo T, Moore CL, Shearman M, Goate A, Wolfe MS, Kopan R. (2003) A presenilin dimer at the core of the gamma-secretase enzyme: insights from parallel analysis of Notch 1 and APP proteolysis. Proceedings of the National Academy of Sciences U S A. 100: 13075-80.

32. Petkovic I, Barisic I, Bastic M, **Hecimovic S**, Bago R. (2003) Paternal origin of der(X)t(X;6) in a girl with trisomy 6p and unbalanced t(6;10) mosaicism in her mother. American Journal of Medical Genetics. 120A(2): 266-71.

33. **Hecimovic S***, Klepac N, Vlašić J, Vojta A, Janko D, Škarpa-Prpić I, Canki-Klain N, Marković D, Božikov J, Relja M, Pavelić K. (2002) Genetic background of Huntington's disease in Croatia: molecular analysis of CAG, CCG and □2642 polymorphisms. Human Mutation. 20: 233.

34. **Hecimovic S***, Bago R, Mužinić D, Begović D, Pavelić K. (2002) The first case of the FRAXE form of inherited mental retardation in Croatia. European Journal of Pediatrics. 161: 112-113.

35. **Hecimovic S***, Petek Tarnik I, Barić I, Čakarun Ž, Pavelić K. (2002) Screening for fragile X syndrome: results from a school for mentally retarded children. Acta Paediatrica. 91(5): 535-539.

36. **Hecimovic S***, Vlašić J, Barišić I, Marković D, Čulić V, Pavelić K. (2001) A simple and rapid analysis of triplet repeat diseases by Expand Long PCR. Clinical Chemistry and Laboratory Medicine. 39: 1259-1262.

37. Tanacković G, Barišić I, Gjergja-Matejić R, **Hecimovic S**, Pavelić J. (2000) The incidence of cystic fibrosis (CF) mutations among patients from Croatia. Clinical Genetics. 58: 333-335.

38. **Hecimovic S***, Barišić I, Marković D, Škarpa I, Relja M, Pavelić K. (1998) Trinucleotide repeat diseases - DNA molecular analysis using a simple Expand Long PCR assay. Periodicum Biologorum. 100: 353-360.

39. **Hecimovic S***, Barišić I, Pavelić K. (1998) DNA analysis of the fragile X syndrome in at risk pediatric population in Croatia: simple clinical preselection criteria can considerably improve the cost-effectiveness of fragile X screening studies. Human Heredity. 48:256-265.

40. **Hecimovic S***, Barišić I, Muller A, Petković I, Barić I, Ligutić I, Pavelić K. (1997) Expand Long PCR for fragile X mutation detection. Clinical Genetics. 52: 147-154.

41. Reljić R, Ries M, **Katusic S**, Ries B. (1991) Comparative studies of some substituted anilines as alternative hydrogen donors in peroxidase reaction. Periodicum Biologorum. 93:27-30.

2. Other publications (Sci-expanded & others)

1. Barišić I, Marušić–Dellamarina B, **Hećimović S**, Lujić L, Gjergja-Matejić R. (1999) Etičko promišljanje liječnika nekad i danas. Paediatria Croatica 43 (1) siječanj-ožujak.

2. Barišić I, Marušić–Dellamarina B, **Hećimović S**, Lujić L, Gjergja-Matejić R. (1999) Epilepsija i EEG zapisi u bolesnika s mutacijom u FMR1 genu. Paediatria Croatica 43 (3) 33-40.

3. Barišić I, Petković I, **Hećimović S**. (2003) Evaluation of the genetic causes of mental retardation [Evaluacija genetičkih uzroka mentalne retardacije]. Lijecnicki Vjesnik 125 (3-4) 71-77.

4. Malnar M, Košiček M, **Hećimović S***. (2009) Alzheimerova bolest: od molekularnog mehanizma do rane dijagnoze. Medicina*: glasilo Hrvatskoga liječničkoga zbora, Podružnica Rijeka*. **45**, 3; 234-243.

3. Editorial books

1. **Metode u molekularnoj biologiji** / Ambriović Ristov, Andreja; Brozović, Anamaria; Bruvo Mađarić, Branka; Ćetković, Helena; Herak Bosnar, Maja; Hranilović, Dubravka; **Katušić Hećimović, Silva**; Meštrović Radan,

Nevenka; Mihaljević, Snježana; Slade, Neda; Vujaklija, Dušica (ur.). Zagreb : Institut Ruđer Bošković, 2007 (priručnik).

4. Book chapters

1. **Katušić Hećimović Silva.** Osnovna metoda PCR // Metode u molekularnoj biologiji / Ambriović Ristov, Andreja ; Brozović, Anamaria ; Bruvo Mađarić, Branka ; Ćetković, Helena ; Herak Bosnar, Maja ; Hranilović, Dubravka ; Katušić Hećimović, Silva ; Meštrović Radan, Nevenka ; Mihaljević, Snježana ; Slade, Neda ; Vujaklija, Dušica (ur.). Zagreb: Institut Ruđer Bošković, 2007. Str. 361-366.

2. **Katušić Hećimović, Silva**. Multipleks PCR // Metode u molekularnoj biologiji / Ambriović Ristov, Andreja ; Brozović, Anamaria ; Bruvo Mađarić, Branka ; Ćetković, Helena ; Herak Bosnar, Maja ; Hranilović, Dubravka ; Katušić Hećimović, Silva ; Meštrović Radan, Nevenka ; Mihaljević, Snježana ; Slade, Neda ; Vujaklija, Dušica (ur.). Zagreb: Institut Ruđer Bošković, 2007. Str. 366-367.

3. **Katušić Hećimović, Silva**. Nested PCR // Metode u molekularnoj biologiji / Ambriović Ristov, Andreja ; Brozović, Anamaria ; Bruvo Mađarić, Branka ; Ćetković, Helena ; Herak Bosnar, Maja ; Hranilović, Dubravka ; Katušić Hećimović, Silva ; Meštrović Radan, Nevenka ; Mihaljević, Snježana ; Slade, Neda ; Vujaklija, Dušica (ur.). Zagreb: Institut Ruđer Bošković, 2007. Str. 367-368.

4. **Katušić Hećimović, Silva**. RFLP PCR // Metode u molekularnoj biologiji / Ambriović Ristov, Andreja ; Brozović, Anamaria ; Bruvo Mađarić, Branka ; Ćetković, Helena ; Herak Bosnar, Maja ; Hranilović, Dubravka ; Katušić Hećimović, Silva ; Meštrović Radan, Nevenka ; Mihaljević, Snježana ; Slade, Neda ; Vujaklija, Dušica (ur.). Zagreb: Institut Ruđer Bošković, 2007. Str. 368-370.

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