
BIOGRAPHICAL SKETCH

NAME Stagljar, Igor	POSITION TITLE		
NATIONALITY Croatia & Canada	Professor		
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Zagreb, Croatia	BSc.	1985-89	Molecular Biology
ETH Zurich, Switzerland	MSc.	1989-90	Molecular Biology
ETH Zurich, Switzerland	PhD.	1990-94	Molecular Biology
University of Zurich, Switzerland	Post-Doc	1995-99	Molecular Biology

A. Personal Statement

Dr. Igor Stagljjar is a Professor in the Departments of Biochemistry and Molecular Genetics at the Donnelly Centre in the University of Toronto, Canada. He is one of the world leaders in the field of interactive proteomics and development of methods to investigate protein-protein interactions. In particular, he is internationally known for the development of the split-ubiquitin Membrane Yeast Two-Hybrid (MYTH) and Mammalian Membrane Two-Hybrid (MaMTH) technologies, powerful tools for the identification of the interactors of membrane proteins and one of the key interactive proteomics technologies. This has led to many groundbreaking discoveries and the elucidation of functions of various membrane proteins involved in human health and disease. Dr. Stagljjar is currently involved in major proteomics projects to map how integral membrane proteins interact to produce either healthy or diseased cells. To that end, his lab is using high-throughput interactive proteomics, genetic, and biochemical tools to understand how cell signaling and membrane transport pathways control cell behavior in normal and disease cells.

Dr. Stagljjar is the author of more than 80 PubMed cited scientific papers and is the recipient of several national and international science awards. In addition, Dr. Stagljjar is a member of the Editorial board of *BioTechniques*, *Molecular Genetics and Genomics*, *BMC Biotechnology*, *Journal of Molecular Biology*, *Biochemical and Biophysical Research Communications*, and *Molecular Systems Biology*. Lastly, Dr. Stagljjar is a co-founder of *Dualsystems Biotech Inc*, one of the world-leading companies in the field of interactive proteomics, and is currently actively working on founding a new biotech start-up company named "*Protein Network Sciences*" which will be based in the San Francisco Bay area.

B. Research Interests

- (i) Proteomics
- (ii) Protein interaction networks in health & disease
- (iii) Mechanism of action of drugs
- (iv) Cell signaling
- (v) Membrane transport

C. Positions and Honors

Positions

1995-1999	Post Doctoral Fellow, Department of Molecular Biology, University of Zurich, Switzerland
1999-2002	Senior Research Associate, Institute of Veterinary Biochemistry and Molecular Biology, University of Zurich, Switzerland
2001	Visiting Scientist, Genome Sciences and Medicine, University of Washington, Washington, USA

Principal Investigator/Program Director (Last, First, Middle):

- 2002-2005 Assistant Professor, Institute of Veterinary Biochemistry and Molecular Biology, University of Zurich, Switzerland
- 2005-2009 Associate Professor, Donnelly Centre, Department of Biochemistry, Department of Molecular Genetics, University of Toronto, Canada
- 2010 - Professor, Donnelly Centre, Department Molecular Genetics, Department of Biochemistry, University of Toronto, Canada

Editorial Boards

- 2004 - Editor of the Faculty of 1000 (Section Genetics and Genomics),
- 2005 - Editorial Board Member, BioTechniques
- 2006 - Editorial Board Member, Molecular Genetics and Genomics
- 2011 - Section Editor, BMC Biotechnology
- 2012 - Editorial Board Member, Journal of Molecular Biology
- 2013 - Editorial Board Member, Biochemical and Biophysical Research Communications
- 2104 - Editorial Board Member, Molecular Systems Biology

Journal Reviewing

Regular: *Nature, Nature Methods, Nature Chemical Biology, Nature Reviews Drug Discovery, Nature Biotechnology, Proteomics, Nucleic Acids Research, Genome Research, Molecular Genetics and Genomics, Molecular Systems Biology, Molecular and Cellular Proteomics, Journal of Proteome Research, PLoS Genetics, PLoS Pathogen*

Occasional: *Biotechniques, EMBO Journal, Genes and Development, Nature Genetics, Proceedings of National Academy of Science, Trends in Genetics, Trends in Biochemical Sciences, Current Opinion in Molecular Biology, Proteins, ACS Chemical Biology, FASEB Journal, Expert Opinion On Therapeutic Targets, Trends in Biochemical Sciences, Drug Discovery Today, Molecular and Cellular Biology, FEBS Journal*

Grant Reviewing

- Swiss National Foundation (2003-present)
- Welcome Trust Funds (UK) (2004-present)
- German National Genome Research Network (NGFN) (2006, 2009, 2012)
- Croatian Ministry of Science (2006-present)
- European Community (2007-2011)
- German Scientific Society (DFG) (2007-present)
- Canadian Cancer Society Research Institute (2007-present)
- Humbolt Foundation Germany (2008-present)
- Danish Ministry of Science (2008-present)
- National Science Foundation USA (2008-present)
- Flanders National Foundation Belgium (2009-present)
- Medical Research Council UK (2009-present)
- Chilean National Commission for Scientific and Technological Research (2010-present)
- European Research Council Senior Awards (ERC) (2011-present)
- Canadian Institute of Health Research (CIHR) (2014-present)
- European Union Horizon 2020 "Personalized Medicine" (2015)

Other Selected Accomplishments and Honors

- 2000-2011 Founder, Vice President and board member of the biotech company Dualsystems Biotech Inc.
- 2011- Founder of the biotech company Dualsystems Biotech Inc.
- 2001-2005 Coordinating Manager of the Proteomics center at the University of Zurich
- 2003 EMBO Young Principal Investigator Award
- 2005 Dean's Fund Award, University of Toronto, Canada
- 2006 Leaders Technology Award, Canadian Funds for Innovation (CFI), Canada
- 2008 Featured in the article "The world renowned Protein Interaction Experts" in *The Scientist*
- 2010 Selection as one of "tomorrow's PIs" Genome Technology Magazine
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Principal Investigator/Program Director (Last, First, Middle):

- 2011 Featured in the 45 min radio interview in the Canadian Broadcasting Corporation (CBC)
- 2012 Featured in the *Success Story* article "The Scientist to Watch" in "The Canadian Immigrant"
- 2014 National Award "Rudjer Boskovic" for the Scientific Achievements by University of Split, Croatia
- 2014 Corresponding Member of the Croatian Academy of Arts and Science
- 2014 Featured in the Globe & Mail article "Scientists fear effect of changes in research funding"
- 2014 The "Croatian of the Year 2014" Award by *Vecernji List*, category science
- 2015 The 2015 Inventor of the Year Award by the University of Toronto

Awards for non-academic accomplishments

Silver medal (2nd place) at the World Junior (U-19) Handball Championship with the Yugoslavian Junior National Handball Team, Gothenburg, Sweden (1987)

Gold medal (1st place) at the Balkan Championship (U-19) with the Yugoslavian Junior National Handball Team, Sofia, Bulgaria (1987)

D. Bibliography and Patents

- Publications: 84 in PubMed, 140 publications, h-factor = 40
- Cited: 6253
- i10-index 71
- Invited lectures: > 120
- Patents: 4

E. Ten most important Publications

1. **Stagljar, I.**, Korostensky, C., Johnsson, N. and te Heesen, S. (1998) A new genetic system based on split-ubiquitin for the analysis of interactions between membrane proteins *in vivo*. *Proc. Natl. Acad. Sci. USA* **95**, 5187-5192
 2. Thaminy, S., Auerbach, D., Arnoldo, A., and **Stagljar, I.** (2003) Identification of novel ErbB3-interacting proteins using the split-ubiquitin membrane yeast two-hybrid technology, *Genome Research* **13**, 1744-1753.
 3. Paumi, C.M., Menendez, J., Arnoldo, A., Engels, K., Iyer, K., Thaminy, S., Georgiev, O., Barral, Y., Michaelis, S., and **Stagljar, I.** (2007) Mapping Protein-Protein Interactions for the Yeast ABC Transporter Ycf1p by Integrated Split-Ubiquitin Membrane Yeast Two-Hybrid (iMYTH) Analysis, *Molecular Cell* **26**,15-25.
 4. Suter, B., Fetchko, M.J. Imhof, R., Graham, C., Stoffel-Studer, I., Zbinden, C., Raghavan, M., Benetti, L., Hort, J., Filingham, J., Greenblatt, J.F., Guri N. Giaever, G.N., Nislow, C., and **Stagljar, I.** (2007) Examining protein-protein interactions using endogenously tagged yeast arrays: the Cross-and-Capture system, *Genome Research* **17**, 1774-1782.
 5. Arnoldo, A., Curak, J., Kittanakom, S., Chevelev, I., Lee, V.T., Sahebol-Amri, M., Kosciak, B., Ljuma, L., Roy, P.J., Bedalov, A., Giaever, G., Nislow, C., A. Merrill, R., Lory, S., and **Stagljar, I.** (2008) Isolating small molecule inhibitors of *Pseudomonas aeruginosa* ExoS toxin using a yeast phenotypic screen, *PLoS Genetics* **4**, e1000005.
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6. Deribe, Y.L., Schmidt, M., Chandrashaker, A., Curak, J., Milutinovic, N., Buerke, L., Fetchko, M.J., Schmidt, P., Kittanakom, S., Brown, K., Jurisica, I., Blagoev, B., Zerial, M., **Stagljär, I.***, and Dikic, I. *(2009) Regulation of EGF receptor endocytosis by histone deacetylase HDAC6, *Science Signaling* 2, ra84 (* co-corresponding authors).
7. Babu, M., Vlasblom, J., Pu, S., Guo, X., Graham, C., Hnatshak, O., Phanse, S., Bajaj, N., Fong, V., Chandran, S., Punna, T., Bean, B.D.M., Davey, M., Snider, J., Wong, V., Christopolous, C., Zhong, G., Li, J., Vizeacoumar, F., **Stagljär, I.**, Conibear, E.* , Wodak, S.J.* , Emili, A.* , and Greenblatt, J.F.* (2012) Interaction Landscape of Membrane Protein Complexes in *Saccharomyces cerevisiae*, *Nature* 489, 585-589 (* co-corresponding authors).
8. Snider, J., Hanif, A., Lee, M.E., Jin, K., Yu, A.R., Chuk, M., Damjanovic, D., Graham, C., Wierzbicka, M., Tang, P., Balderes, D., Wong, V., San Luis, B-J., Shevelev, I., Sturley, S.L., Boone, C., Babu, M., Zhang, Z., Paumi, C.M., Park, H-O., Michaelis, S., and **Stagljär, I.** (2013) Mapping the functional yeast ABC transporter interactome, *Nature Chemical Biology* 9, 565-572.
9. Petschnigg, J., Groisman, B., Kotlyar, M., Taipale, M., Zheng, Y., Kurat, C.F., Sayad, A., J. Rafael Sierra, Mattiazzi Usaj, M., Snider, J., Nachman, A., Krykbaeva, I., Tsao, M-S., Moffat, J., Pawson, T., Lindquist, S., Jurisica, I. and **Stagljär, I.** (2014) The mammalian-membrane two-hybrid assay (MaMTH) for probing membrane-protein interactions in human cells, *Nature Methods* 11, 585-592.
10. Lam, M.H.Y, Snider, J., Rehal, M., Wong, V., Aboualizadeh, F., Drecun, L., Wong, O., Jubran, B., Li, M., Ali, M., Jessulat, M., Deineko, V., Miller, R., Lee, M., Park, H-O., Davidson, A., Babu, M., and **Stagljär, I.** (2015) A Comprehensive Membrane Interactome Mapping of Sho1p Reveals Fps1p as a Novel Key Player in the Regulation of the HOG Pathway in *S. cerevisiae*, *Journal of Molecular Biology*, 2015 Jan 30. pii: S0022-2836(15)00038-8. doi: 10.1016/j.jmb.2015.01.016. [Epub ahead of print].

F. Peer-reviewed publications (last five years)

1. Snider J., Kittanakom S., Curak J., and **Stagljär I.** (2010) Split-ubiquitin based membrane yeast two-hybrid (MYTH) system: a powerful tool for identifying protein-protein interactions. *J. Vis. Exp.* (36). pii: 1698. doi: 10.3791/1698.
 2. Snider J., Kittanakom S., Damjanovic D., Curak J., Wong V., and **Stagljär I.** (2010) Detecting interactions with membrane proteins using a membrane two-hybrid assay in yeast. *Nat Protoc.* 5:1281-1293.
 3. Jin, J., Kittanakom, S., Wong, V., Reyes, B.A., Van Bockstaele, E.J., **Stagljär, I.**, Berrettini, W., Levenson, R. (2010) Interaction of the mu-opioid receptor with GPR177 (Wntless) inhibits Wnt secretion: potential implications for opioid dependence, *BMC Neurosci.* 11, 33-48.
 4. Petschnigg J., Snider J., and **Stagljär I.** (2011) Interactive proteomics research technologies: recent applications and advances. *Curr. Opin. Biotechnol.* 22, 50-58. (Review)
 5. Petschnigg J., Moe O., and **Stagljär I.** (2011) Using yeast as a model to study membrane proteins, *Curr Opin Nephrol Hypertens* 20 (4), 425-432 (Review).
 6. Gfeller, D., Butty, F., Wierzbicka, M., Verschueren, E., Vanhee, E., Huang, H., Ernst, A., Dar, N., **Stagljär, I.**, Serrano, L., Sidhu, S.S., Bader, G.D., and Kim, P.M. (2011) The multiple specificity landscape of modular protein domains, *Mol Systems Biol* 7, 484-493.
 7. Petschnigg J, Wong V, Snider J, **Stagljär I.** (2012) Investigation of membrane protein interactions using the split-ubiquitin membrane yeast two-hybrid system, *Methods Mol Biol* 812, 225-244.
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8. Lee, M.E., Singh, K., Snider, J., Shenoy, A., Paumi, C.A., **Stagljar, I.**, and Park, H-O. (2011) The Rho1 GTPase in budding yeast is involved in cellular response to oxidative stress, *Genetics* 188 (4) 859-870.
 9. Lam, M.H.Y. and **Stagljar, I.** (2012) Strategies for membrane interaction proteomics: no mass spectrometry required, *Proteomics* 12, 1519-1526 (Review)
 10. Usenovic, M., Knight, A. L., Raj, A., Wong, V., Brown, K. R., Caldwell, G. A., Caldwell, K. A., **Stagljar, I.**, Krainc, D. (2012) Identification of novel ATP13A2 interactors and their role in α -synuclein misfolding and toxicity, *Hum Mol Genet* 21, 3785-3794.
 11. Babu, M., Vlasblom, J., Pu, S., Guo, X., Graham, C., Hnatshak, O., Phanse, S., Bajaj, N., Fong, V., Chandran, S., Punna, T., Bean, B.D.M., Davey, M., Snider, J., Wong, V., Christopolous, C., Zhong, G., Li, J., Vizeacoumar, F., **Stagljar, I.**, Conibear, E.* , Wodak, S.J.* , Emili, A.* , and Greenblatt, J.F.* (2012) Interaction Landscape of Membrane Protein Complexes in *Saccharomyces cerevisiae*, *Nature* 489, 585-589 (* co-corresponding authors).
 12. Mak, A.B., Stewart, J.M., Kittanakom, S., Chen, G.I., Curak, J., Gingras, A-C., Mazitschek, R., Neel, B.G., **Stagljar, I.**, and Moffat, J. (2012) Association of CD133, HDAC6 and b-catenin promotes transcription of TCF/LEF target genes and suppresses differentiation in cancer cells, *Cell Rep*, 2012 Oct 25;2(4):951-63. doi: 10.1016/j.celrep.2012.09.016
 13. **Stagljar, I.** (2012) Editorial for "advances in protein-protein interactions", *Methods*, 2012 Aug; 57(4):399. doi: 10.1016/j.ymeth.2012.08.014.
 14. Gandía, J., Fernández-Dueñas, V., Morató, X., Caltabiano, G., González-Muñiz, R., Pardo, L., **Stagljar, I.**, and Ciruela, F. (2013) The Parkinson's Disease-Associated Gpr37 Receptor-Mediated Cytotoxicity Is Controlled By Its Intracellular Cysteine-Rich Domain, *J Neurochem*, 2013 Feb 11. doi: 10.1111/jnc.12196 [Epub ahead of print]
 15. Xie, L., Gao, S., Alcaire, S., Wang, Y., **Stagljar, I.**, and Zhen, M. (2013) NLF-1 Regulates Neuronal Excitability through a Conserved Sodium Leak Channel, *Neuron* 77,1069-1082.
 16. Snider, J., Hanif, A., Lee, M.E., Jin, K., Yu, A.R., Chuk, M., Damjanovic, D., Graham, C., Wierzbicka, M., Tang, P., Balderes, D., Wong, V., San Luis, B-J., Shevelev, I., Sturley, S.L., Boone, C., Babu, M., Zhang, Z., Paumi, C.M., Park, H-O., Michaelis, S., and **Stagljar, I.** (2013) A global analysis of the *Saccharomyces cerevisiae* ABC transporter interaction network: towards a greater understanding of membrane transport, *Nat Chem Bio* 9(9): 565-572.
 - Featured in News & Views article** by Monk B.C. (2013) Transporters: A yeast ABC interactome primer, *Nat Chem Bio* 9, 531-533.
 17. Huang, X., Dai, F.F., Gaisano, G., Giglou, K., Han, J., Zhang, M., Kittanakom, S., Wong, V., Wei, L., Showalter, A.D., Sloop, K.W., **Stagljar, I.**, and Wheeler, M.B. (2013) The Identification of Novel Proteins that Interact with the GLP-1 Receptor and Restrain its Activity, *Mol Endocrinol* 27(9), 1550-1563.
 18. Petko, J., Justice-Bitner, S., Jin, J., Wong, V., Kittanakom, S., Ferraro, T.N., **Stagljar, I.** and Levenson, R. (2013) MOR is Not Enough: Identification of Novel mu-Opioid Receptor Interacting Proteins Using Traditional and Modified Membrane Yeast Two- Hybrid Screens, *PLoS One* 8(6), e67608.
 19. Petschnigg, J., Groisman, B., Kotlyar, M., Taipale, M., Zheng, Y., Kurat, C.F., Sayad, A., J. Rafael Sierra, Mattiazzi Usaj, M., Snider, J., Nachman, A., Krykbaeva, I., Tsao, M-S., Moffat, J., Pawson, T., Lindquist, S., Jurisica, I. and **Stagljar, I.** (2014) The mammalian-membrane two-hybrid assay (MaMTH) for probing membrane-protein interactions in human cells, *Nature Methods* 11, 585-592.
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Featured in the Research Highlight article by Finkelstein J.M. (2014) Just the two of us, *Nat Chem Bio* 10, 325 (2014) doi:10.1038/nchembio.1513

20. Kittanakom, S., Barrios-Rodiles, M., Petschnigg, J., Arnoldo, A., Wong, V., Kotlyar, M., Hesiler, L., Jurisica, I., Wranna, J.L., Nislow, C., and **Stagljar, I.** (2014) CHIP-MYTH: A novel interactive proteomics method for the assessment of agonist-dependent interactions of the human β 2-adrenergic receptor, *Biochem Biophys Res Commun*, 445, 746-756.
 21. **Stagljar I.** (2014) Editorial for "Advances in OMICs-based disciplines", *Biochem Biophys Res Commun*, 445, 681-682.
 22. Kutscheidt, S., Zhu, R., Antoku, S., Luxton, G.W.G., **Stagljar, I.**, Fackler, O., and Gundersen, G. (2014) FHOD1 interaction with nesprin-2G mediates TAN line formation and nuclear movement, *Nature Cell Biology* 16, 708-715.
 23. Kotlyar, M., Pastrello, C., Pivetta, F., Lo Sardo, A., Cumbaa, C., Li, H., Naranian, T., Niu, Y., Ding, Z., Vafae, V., Broackes-Carter, F., Jurisicova, A., Mills, G., **Stagljar, I.**, Maestro, R., and Jurisica, I. (2015) Comprehensive In Silico Prediction of Physical Protein Interactions and Characterization of Interactome Orphans, *Nature Methods* 12 (1): 79-84. doi: 10.1038/nmeth.3178.
 24. Bean, B.D.M, Davey, M., Snider, J., Jessulat, M., Deineke, V., Tinney, M., **Stagljar, I.**, Babu, Conibear, E. (2015) Rab5-family guanine nucleotide exchange factors bind retromer and promote its recruitment to endosomes, *Molecular Biology of the Cell*, 2015 Jan 21. pii: mbc.E14-08-1281. [Epub ahead of print]
 25. Lam, M.H.Y, Snider, J., Rehal, M., Wong, V., Aboualizadeh, F., Drecun, L., Wong, O., Jubran, B., Li, M., Ali, M., Jessulat, M., Deineko, V., Miller, R., Lee, M., Park, H-O., Davidson, A., Babu, M., and **Stagljar, I.** (2015) A Comprehensive Membrane Interactome Mapping of Sho1p Reveals Fps1p as a Novel Key Player in the Regulation of the HOG Pathway in *S. cerevisiae*, *Journal of Molecular Biology*, pii: S0022-2836(15)00038-8. doi: 10.1016/j.jmb.2015.01.016. [Epub ahead of print]
 26. Lopes JP, Morató X, Souza C, Pinhal C, Machado NJ, Canas PM, Silva HB, **Stagljar I**, Gandía J, Fernández-Dueñas V, Luján R, Cunha RA, Ciruela F. (2015) The role of Parkinson's disease-associated receptor GPR37 in the hippocampus: functional interplay with the adenosinergic system, *Journal of Neurochemistry*, doi: 10.1111/jnc.13109. [Epub ahead of print]
 27. Gandía J, Morató X, **Stagljar I**, Fernández-Dueñas V, Ciruela F. (2015) Adenosine A2A receptor-mediated control of pilocarpine-induced tremulous jaw movements is Parkinson's disease-associated GPR37 receptor-dependent, *Behavioral Brain Research*, 2015 Apr 8. pii: S0166-4328(15)00243-0. doi: 10.1016/j.bbr.2015.04.001. [Epub ahead of print]
 28. Yao, Z., Petschnigg, J., Ketteler, R., and **Stagljar, I.** (2015) Application Guide of OMICs Approaches to Cell Signaling, the "Perspective" article, *Nature Chemical Biology*, in press.
 29. Yachie, Y., Mellor, J., Verby, M., Ozturk, S., Li, S., Petsalaki, E., Cote, A., Mosca, R., Liu, Y-C., Knapp, J., Ko, M., Yu, A., Gebbia, M., Sahni, N., Yi, S., Tyagi, T., Sheykhkarimli, D., Roth, J., Musa, L., Snider, J., Yu, H., Braun, P., **Stagljar, I.**, Hao, T., Calderwood, M., Pelletier, L., Aloy, P., Hill, D., Vidal, M., Roth, F. (2015) Barcode Fusion Genetics extends next-generation sequencing to combinatorial library screens, under review in *Nature Methods*.
 30. Gulati, S., Balderes, D., Kim, C., Guo, Z.A, Wilcox, L., Gomez, E-A., Snider, J., Wolinski, H., **Stagljar, I.**, Granato, J.T., Ruggles, K.V., DiGeorgis, J.A., Kohlwein, S.D, Schon, E.A., and Sturley, S.L. (2015) ABC-transporters and sterol O-acyltransferases interact at membrane microdomains to modulate sterol uptake and esterification, under review in *FASEB J*.
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31. Sharma, P., Abbasi, C., Bousette, N., Lazic, S., Dubois, N., Ignatchenko, A., Ignatchenko, V., Teng, A.C.T., Wilson, A., Noronha, M., Wong, W., Liu, J., Araki, T., Liu, J., Tiburcy, M., Zimmermann, W.H, Ackerley, C., Hamilton, R., Sun, Y., Liu, P.P, Backx, P.H., Keller, G., **Stagljär, I.**, Scott, I.C., Kislinger, T., and Gramolini, A.O. (2015) Tmem65 is an Evolutionary Conserved Membrane Protein that Regulates Connexin43 Function, under review in *Nature Communication*.
32. Trimpert, C., Wesche, D., de Groot, T., Pimentel Rodriguez, M.M., Wong, W., van der Berg, D.T.M., Ariza, C.A., **Stagljär, I.**, and Deen, P.M.T. (2015) NDFIP1: the missing adaptor for ubiquitination and degradation of the Aquaporin-2 water channel by NEDD4 and NEDD4L, under review in *the Journal of the American Society of Nephrology*.
33. Benleulmi-Chaachoua, A., Le Boulch, M., Karamitri, A., Wierzbicka, M., Wong, W., **Stagljär, I.**, Delagrangé, P., and Ralf Jockers (2015) Agonist-independent modulation of dopamine transporter DAT activity by melatonin receptors, under review in *Molecular & Cellular Proteomics*.
34. Snider, J., Saraon, P., Yao, Z., Kotlyar, M., Jurisica, I., and **Stagljär, I.** (2015) Protein Interaction Network Primer, commissioned "Review" article, under review in *Nature Methods*.
35. Sokolina, K., Kittanakom, S., Kotlyar, M., Maurice, P., Gandía, J., Benleulmi-Chaachoua, A., Tadagaki, K., Wong, V., Reyes, B.A., Janjić, J., Brown, K.R., Kobayashi, H., Menendez, J., Auerbach, D., Moffat, J., Angers, A., Pržulj, N., Bouvier, M., Ciruela, F., Jockers, R., Jurisica, I., and **Stagljär, I.** (2015) GPCR interactome: systematic mapping of protein-protein interactions for clinically-relevant human GPCRs, to be submitted to *Molecular Systems Biology*.
36. Ebersole, B., Petko, J., Woll, M., Murakami, S., Sokolina, K., Wong, V., **Stagljär, I.**, Lüscher, B., and Levenson, F. (2015) Effect of C-terminal S-palmitoylation on D2 dopamine receptor trafficking and stability, submitted to *PLoS One*.

G. Invited Presentations (Oral) at Meetings and Symposia (last five years)

1. International Conference on "Cell Signaling", March 20-26, 2010, Montevideo, Uruguay
 2. 39th Annual Meeting of Brazilian Society for Biochemistry and Molecular Biology (SBBq), May 18-22, 2010, Foz do Iguacu, Brazil
 3. 35th FEBS Congress "Molecules of life", June 25-July 1, 2010, Gothenburg, Sweden
 4. The USA National Science Foundation funded International Symposium, Aug 4-14, 2010, Rio de Janeiro, Brazil
 5. 10th jubilee Congress of the Croatian Society of Biochemistry and Molecular Biology, Sept 14-20, Opatija, Croatia
 6. FEBS/ESF Conference "Spatiotemporal Dynamics of Signalling". Sept 30-Oct 3, 2010, Oslo, Norway
 7. International Conference "PPI Berlin: Current Trends in Network Biology", Oct 8-9, 2010, Berlin, Germany
 8. 11th annual Great Lakes GPCR retreat, Oct 21-23, 2010, Kingbridge ON, Canada
 9. The European Science Foundation/EMBO Symposium "Molecular Perspectives on Protein-Protein Interactions", Nov 14-19, 2010, Costa Brava, Spain
 10. Cold Spring Harbor Conference "Systems Biology: Networks", March 22-26, 2011, Cold Spring Harbor, USA
 11. Keystone Meeting "Omics meets cell biology", May 8-13, 2011, Alpbach, Austria
 12. International Symposium "From Rudjer Boskovic to Today: Contribution of Croatian Scientists to the World Scientific Heritage", May 28-June 2, 2011, Dubrovnik, Croatia
 13. EMBO conference "Cancer Proteomics", June 20-23, Dublin, Ireland
 14. European Society of Cardiology Conference "2nd Dubrovnik Cardiology Highlights", Dubrovnik, Croatia, Sept 29-Oct 2, 2011
 15. International Brain Research Organization "Probing Normal and Pathological Neural Cell Functions", San
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Principal Investigator/Program Director (Last, First, Middle):

- Juan, Puerto Rico, Oct 31-Nov 6, 2011
16. ICREA Conference “Network Medicine Approaches to Human Disease: from Computers to Clinics”, Barcelona, Spain, Nov 21-23, 2011
 17. Wellcome Trust Conference “Protein Interactions and Networks”, Hinxton, UK, December 11-17, 2011
 18. FEBS Meeting “ATP-Binding Cassette (ABC) Proteins: From Multidrug Resistance to Genetic Diseases”, Innsbruck, Austria, March 3-9, 2012
 19. 4th Annual Canadian National Proteomics Network (CNPN) Symposium, Toronto, ON, April 23-26, 2012 (keynote speaker)
 20. International Conference “From Solid State to Biophysics”, Cavtat, Croatia, June 9-16, 2012
 21. International Conference “The Insel Symposium – the Roots of Future Biology”, Konstanz, Germany, June 14-16, 2012
 22. The 13th International Conference on Systems Biology, Toronto, Canada, Aug 19-23, 2012 (session chair of the “Protein Interactions” session)
 23. International Conference “Exploring Protein Interactions through Theory and Experiments”, Lausanne, Switzerland, Sept 24-26, 2012 (keynote speaker)
 24. International Conference “Immunotherapy IT 2012: Therapeutic Manipulation of the Inflammatory Microenvironment”, Havana, Cuba, November 12-16, 2012.
 25. International Conference “The Current Tools in Cell Biology: Probing normal and pathological cell functions”, Fortaleza, Brazil, Dec 3-9, 2012
 26. 9th Annual Bellairs Research Workshop “Personalized Treatment of Human Diseases with Advanced Technologies”, Holetown, Barbados, January 18-26, 2013
 27. International Conference “4th Cancer Targets and Therapeutics”, Las Vegas, NV, USA, February 21-27, 2013
 28. Gordon Conference “Multi-Drug Efflux Systems”, Ventura, CA, USA, March 17-22, 2013
 29. International Conference “Membrane Proteins: functions, structures, and diseases”, Taipei, Taiwan, May 20-25, 2013
 30. International workshop “Protein-Protein Interactions”, Copenhagen, Denmark (keynote speaker), Aug 11-16, 2013
 31. International Conference organized by the EU Scientific Council “Oncogenic EGFR Signaling”, Cavtat, Croatia, Oct 6-11, 2013
 32. 10th Annual Bellairs Research Workshop “Molecular Cell Biology and Proteomics”, Holetown, Barbados, January 19-25, 2014
 33. Keystone Conference “OMICs meets cell biology: applications to health and disease”, Taos, NM, USA, Feb 18-23, 2014 (Igor Stagljär was a co-organizer of this conference)
 34. The American Society for Molecular Biology & Biochemistry (ASMBM) Annual Conference “Experimental Biology”, San Diego, CA, USA, April 26-30, 2014
 35. International Conference “From basic to life sciences”, Cavtat, Croatia, June 7-14, 2014
 36. Wellcome Trust Conference “Protein Interactions and Networks”, Hinxton, UK, August 5-10, 2014-05-16
 37. 7th Annual SFB35 Symposium “Transmembrane Transporters in Health and Disease”, Vienna, Austria, September 8-10, 2014 (Keynote speaker)
 38. International symposium “The festival of Science” organized by the Croatian Government, Sinj, Croatia, September 13-16, 2014 (Keynote speaker)
 39. International Symposium “Clinical and Applied Proteomics”, Montreal, Canada, Oct 23-24, 2014
 40. EMBO conference “From Biochemistry and Molecular Biology Approaches to Systems Biology”, Rio de Janeiro & Búzios, Brazil, Oct 29-Nov 6, 2014
 41. International Conference organized by the EU Scientific Council “Oncogenic EGFR Signaling”, Vienna, Austria, Nov 30-Dec 3, 2014
 42. 11th International Conference “Systems Biology & Cancer”, Holetown, Barbados, Jan 17-23, 2015
 43. BBRC Symposium “Trends in Biochemistry and Biophysics”, Bangalore, India, May 18-20, 2015, Bangalore, India
 44. International Conference “Molecular Perspectives of Protein-Protein Interactions”, Pillar and Post Inn, Niagara-on-the-lake, Ontario, Canada, May 29 – June 2, 2015
 45. International Conference “OMICs in Biomedical Research”, Split, Croatia, June 8-12, 2015
 46. International Conference “Next-Generation Antibodies and Protein Analysis: Tools and Technologies”,
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Principal Investigator/Program Director (Last, First, Middle):

Gent, Belgium, June 15-16, 2015

47. International Conference "Membrane transporters – from basic science to drug discovery", Lugano, Switzerland, August 9-13, 2015
48. 12th International Conference organized by the Croatian Society of Molecular Biology, St. Martin, Croatia, September 18-22, 2015
49. 14th Human Proteome Organization (HUPO) 2015 World Congress, Vancouver, Canada, September 27-30, 2015 (Igor Stagljjar will be chair of the session "Membrane Proteomics")
50. 2nd Shanghai Tech-SIAIS Bioforum "Advances in Integrative Biology of Cellular Processes", Shanghai, China, November 10-13, 2015

I. Organization of Meetings and Symposia

1. International Conference "Functional Genomics in Medicine", Split, Croatia, June 2-8, 2007.
2. Keystone Conference "OMICs meets cell biology: applications to health and disease", Taos, NM, USA, Feb 18-23, 2014
3. International Conference "Molecular Perspectives on Protein-Protein Interactions", Pillar and Post Inn, Niagara-on-the-lake, Ontario, Canada, May 29 – June 2, 2015
4. International Conference "OMICs in Biomedical Research", Split, Croatia, June 8-12, 2015
5. EMBO Conference "Advanced School on Molecular and Cell Biology to Unravel the Physiology/Pathology of Diverse Biological Paradigms", Montevideo, Uruguay, Nov 16-19, 2015

J. Invited Lectures (last five years)

1. York University, Department of Biochemistry, Toronto, Canada, January 2010
 2. University of Ljubljana, Department of Molecular Biology, Ljubljana, Slovenia, February 2010
 3. University of Puerto Rico, Department of Biochemistry, San Juan, Puerto Rico, March 2010
 4. Purdue University, Department of Pharmacology, Laffayette, IN, USA, April 2010
 5. Eli Lilly and Company, Indianapolis, IN, USA, April 2010
 6. State University New York (SUNY), Department of Pharmacology, Stony Brook, NY, USA, May 2010
 7. Institute Rudjer Boskovic, Department of Molecular Medicine, Zagreb, Croatia, June 2010
 8. ETH Lausanne, Department of Molecular Biology, Lausanne, Switzerland, February 2011
 9. University of California San Diego, Department of Systems Biology, San Diego, CA, USA, March 2011
 10. Florida State University, Department of Molecular Biophysics, Tallahassee, FL, USA, April 2011
 11. University of Puerto Rico, Department of Pharmacology, San Juan, Puerto Rico, April 2011
 12. Novartis, Basel, Switzerland, Pathway Discovery Institute, June 2011
 13. Federal University of Rio de Janeiro, Department of Biochemistry, Rio de Janeiro, Aug 2011
 14. Catholic University of Rio de Janeiro, Department of Pharmacology, Rio de Janeiro, Aug 2011
 15. School of Medicine, University of Zagreb, Clinical Center Rebro, Nov 2011
 16. Imperial College London, Department of Computational Biology, London, UK, Dec 2011
 17. University of Western Ontario, Department of Pharmacology, London ON, April 2012
 18. University of Michigan, Cardiovascular Center, Ann Arbor, MI, USA, May 2012
 19. University of British Columbia, Vancouver, BC, May 2012
 20. University of Havana, Center of Molecular Immunology (CIM), Havana, Cuba, Nov 2012
 21. University of California San Diego, Skaggs School of Pharmacy and Pharmaceutical Sciences, March 2013
 22. University of Vienna, Department of Pharmacology, Vienna, Austria, Oct 2013
 23. University of Nevada Las Vegas, NV, USA, November 2013
 24. Genentech, San Francisco, CA, Dec 2013
 25. Allakos Inc, San Carlos, CA, Dec 2013
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Principal Investigator/Program Director (Last, First, Middle):

26. University of Colorado, Department of Biochemistry, February 2014
27. ETH Zurich, Institute of Molecular Systems Biology, April 2014
28. Novartis, Basel, Switzerland, April 2014
29. University of Oxford, Gray Institute for Radiation Oncology & Biology, Oxford, UK, Sept 2014
30. Merck & Co. Inc, Boston, MA, USA, Oct 2014
31. Harvard Medical School, Dana Farber Cancer Center, Boston, MA, USA, Oct 2014
32. Federal University of Rio de Janeiro, Department of Pharmacology, Rio de Janeiro, Nov 2014
33. Institute for Science & Technology, Vienna, Austria, Dec 2014
34. Croatian Academy of Arts & Sciences, Zagreb, Croatia, Dec 2014
35. German Cancer Research Center (DKFZ), Heidelberg, Germany, Dec 2014
36. Skeptics in the Pub, Public lecture, Pub Sax, Zagreb, Croatia, April 2015
37. University of Zagreb Medical School, Zagreb, Croatia, April 2015
38. Uppsala University, Institute of Immunology, Genetics and Pathology, Uppsala, Sweden, April 2015

K. Research Support

Since his move from the University of Zurich to the University of Toronto in September 2005, Prof. Stagljär has been awarded over 7.7 million dollars in research funds from various national and international funding agencies in addition to non-profit foundations and pharmaceutical companies such as Nuvelo Pharmaceuticals, Genentech, Novartis and Merck. Prof. Stagljär's lab is also part of a large EU consortium called PRIMES (PRotein Interaction Machines in oncogenic EGF receptor Signaling), which was awarded 8 million EURO in 2011. Below is the summary of the on-going support for Prof. Stagljär's lab:

1. Canadian Cancer Society Research Institute

Title: Elucidation of EGFR signaling pathways in non-small cell lung cancer (NSCLC) using a novel interactive proteomics technology MaMTH

Expiry Date: 2015

2. Canadian Cystic Fibrosis Foundation

Title: Probing the dynamic CFTR-interactome using the Mammalian Membrane Two-Hybrid (MaMTH) assay

Expiry Date: 2016

3. Canadian Institute of Health Research (CIHR)

Title: CIHR team in Arrythomegenic Right Ventricular Cardiomyopathy (ARVC): from genes to proteins, cells, tissues and patients

Expiry Date: 2015

Co-investigators: Dr. Robert Hamilton, Dr. Anthony Gramollini and Igor Stagljär

4. Ontario Research Funds GL2

Title: Functional genomics of solid tumors for discovery and development of new biologics & biomarkers

Expiry Date: 2015

Co-investigators: Drs. Ben Neel, Jason Moffat, Sachdev Sidhu and Igor Stagljär

Principal Investigator/Program Director (Last, First, Middle):

5. Genentech

Title: Elucidation of signaling pathways using the MaMTH technology

Expiry Date: 2016

6. Canadian Pancreatic Cancer Society

Title: Elucidation of aberrant K-RAS signaling pathways in Pancreatic Ductal Adenocarcinoma (PDAC) using MaMTH, a novel proteomics technology

Expiry Date: 2017

7. Blueline Drug Target Program

Title: Advancing the validation of 14.3.3 protein interaction with mutant CFTR as a therapeutic target for treating Cystic Fibrosis

Expiry Date: 2017

8. CQDM/OCE Explore Program

Title: "Establishment of the Mammalian Membrane Two Hybrid (MaMTH) assay as an innovative technology for drug discovery"

Expiry day: 2017
