Curriculum vitae

Marija Buljan, PhD

Group Leader: Multi-omics for innovations in healthcare materials

Empa, Particles-Biology Interactions Lab
Lerchenfeldstrasse 5
9014 St. Gallen
Switzerland
E-mail: marija.buljan@empa.ch

Education

2006 – 2010	University of Cambridge, UK, PhD thesis at the Welcome Trust Sanger Institute
2001 – 2006	University of Zagreb, HR, Diploma engineer in Molecular Biology
1997 – 2001	Mathematical Gymnasium, Split, HR

Professional experience

Since 2020	Group Leader at Empa, Materials Science and Technology, CH
2015 – 2019	SNF SystemsX Fellow, ETH Zurich, CH
2013 – 2015	CellNetworks fellow, DKFZ Heidelberg, DE
2011 – 2013	Postdoctoral fellow, MRC LMB, UK
2014 – 2019	Expert adviser for European Commission, Brussels, BE

Invited talks

2019	Swiss Proteomics Meeting, Montreux, CH
2018	European Association for Cancer Research, Bergamo, IT
2018	From Functional Genomics to Systems Biology, EMBL
2018	Personalized Health conference, Zurich, CH
2017	Seattle Institute for Systems Biology, Seattle, USA
2016	European Bioinformatics Institute, Hinxton, UK
2016	Center for Molecular Medicine, Cologne, DE
2016	Anita Borg Birthday Anniversary, Google, Zurich, CH
2016	American Society for Mass Spectrometry, San Antonio, USA
2014	European Bioinformatics Institute, Hinxton, UK
2013	Society for Bioinformatics in Northern Europe, Torun, PL
2013	DyProt meeting, Dresden, DE
2012	Gordon Research Conference, Vermont, USA
2012	Copenhagen Bioscience Conference, Copenhagen, DK
2012	Universite Laval, Montreal, CA
2010	Functional Genomics and Disease, Dresden, DE

Awards

2009	Poster award at IMSB/ECCB conference on Computational Biology, SE
2005	Outstanding student award, Faculty of science, University of Zagreb
2001	Outstanding student award, Mathematical Gymnasium, Split, HR

Reviewing

I reviewed manuscripts for Cell, Cancer Cell, Cell Systems, Cell Reports, Nature Genetics, PLoS Comp Biol, Bioinformatics, Nature Communications and Molecular BioSystems

Publications (Google Scholar: Marija Buljan, Empa)

T Guo, A Luna, VN Rajapakse, CC Koh, Z Wu, W Liu, Y Sun, H Gao, MP Menden, C Xu, L Calzone, L Martignetti, C Auwerx, **M Buljan**, A Banaei-Esfahani, A Ori, M Iskar, L Gillet, R Bi, J Zhang, H Zhang, C Yu, Q Zhong, S Varma, U Schmitt, P Qiu, Q Zhang, Y Zhu, PJ Wild, M J Garnett, P Bork, M Beck, K Liu, J Saez-Rodriguez, F Elloumi, WC Reinhold, C Sander, Y Pommier, Aebersold R: Comparative analysis of mRNA and protein degradation in prostate tissues indicates high stability of proteins. iScience (2019

Shao W, Guo T, Toussaint NC, Xue P, Wagner U, Li L, Charmpi K, Zhu Y, Wu J, **Buljan M**, Sun R, Rutishauser D, Hermanns T, Fankhauser CD, Poyet C, Ljubicic J, Rupp N, Rüschoff JH, Zhong Q, Beyer A, Ji J, Collins BC, Liu Y, Rätsch G, Wild PJ, R Aebersold R: Comparative analysis of mRNA and protein degradation in prostate tissues indicates high stability of proteins. Nature communications (2019)

Buljan M, Blattmann P, Aebersold R, M Boutros M: Systematic characterization of pan-cancer mutation clusters. Molecular systems biology (2018)

Glusman G, Rose PW, Prlić A, Dougherty J, Duarte JM, Hoffman AS, Barton GJ, Bendixen E, Bergquist T, Bock C, Brunk E, **Buljan M**, Burley SK, Cai B, Carter H, Gao JJ, Godzik A, Heuer M, Hicks M, Hrabe T, Karchin R, Koehler Leman J, Lane L, Masica DL, Mooney SD, Moult J, Omenn GS, Pearl F, Pejaver V, Reynolds SM, Rokem A, Schwede T, Song S, Tilgner H, Valasatava Y, Zhang Y, Deutsch EW: Mapping genetic variations to three-dimensional protein structures to enhance variant interpretation: a proposed framework. Genome medicine (2017)

Liu Y, Borel C, Li L, Müller T, Williams EG, Germain PL, **Buljan M**, Sajic T, Boersema PJ, Shao W, Faini M, Testa G, Beyer A, Antonarakis SE, Aebersold R: Systematic proteome and proteostasis profiling in human Trisomy 21 fibroblast cells. Nature communications (2017)

Latysheva NS, Oates ME, Maddox L, Flock F, Gough J, **Buljan M**, Weatheritt RJ, Babu MM: Molecular principles of gene fusion mediated rewiring of protein interaction networks in cancer. Molecular cell (2016)

R Van Der Lee, **M Buljan**, B Lang, RJ Weatheritt, GW Daughdrill, AK Dunker, M Fuxreiter, J Gough, J Gsponer, DT Jones, PM Kim, RW Kriwacki, CJ Oldfield, RV Pappu, P Tompa, VN Uversky, Peter E Wright, M Madan Babu, Classification of intrinsically disordered regions and proteins, Chemical reviews (2014)

DM Mitrea, CR Grace, **M Buljan**, MK Yun, NJ Pytel, J Satumba, A Nourse, CG Park, MM Babu, SW White, RW Kriwacki, Structural polymorphism in the N-terminal oligomerization domain of NPM1, Proceedings of the National Academy of Sciences (2014)

JK White, AK Gerdin, NA Karp, E Ryder, **M Buljan**, JN Bussell, J Salisbury, S Clare, NJ Ingham, C Podrini, R Houghton, J Estabel, JR Bottomley, DG Melvin, D Sunter, NC Adams, L Baker, C Barnes, R Beveridge, E Cambridge, D Carragher, P Chana, K Clarke, Y Hooks, N Igosheva, C Ismail, H Jackson, L Kane, R Lacey, DT Lafont, M Lucas, S Maguire, K McGill, RE McIntyre, S Messager, L Mottram, L Mulderrig, S Pearson, HJ Protheroe, LA Roberson, G Salsbury, M Sanderson, D Sanger, C Shannon, PC Thompson, E Tuck, VE Vancollie, L Brackenbury, W Bushell, R Cook, P Dalvi, D Gleeson, B Habib, M Hardy, K Liakath-Ali, E Miklejewska, S Price, D Sethi, E Trenchard, D von Schiller, S Vyas, AP West, J Woodward, E Wynn, A Evans, D Gannon, M Griffiths, S Holroyd, V Iyer, C Kipp, M Lewis, W Li, D Oakley, D Richardson, D Smedley, C Agu, J Bryant, L Delaney, NI Gueorguieva, H Tharagonnet, AJ Townsend, D Biggs, E Brown, A Collinson, CE Dumeau, E Grau, S Harrison, James Harrison, Catherine E Ingle, Helen Kundi, Alla Madich, Danielle Mayhew, T Metcalf, S Newman, J Pass, L Pearson, H Reynolds, C Sinclair, H Wardle-Jones, M Woods, L Alexander, T Brown, F Flack, C Frost, N Griggs, S Hrnciarova, A Kirton, J McDermott, C Rogerson, G White, P Zielezinski, T DiTommaso, A Edwards, E Heath, MA Mahajan, B Yalcin, D Tannahill, DW Logan, DG MacArthur, J Flint, VB Mahajan, SH Tsang, I Smyth, FM Watt, WC Skarnes, G Dougan, DJ Adams, R Ramirez-Solis, A Bradley, KP Steel, Genome-wide generation and systematic phenotyping of knockout mice reveals new roles for many genes, Cell (2013)

M Buljan, G Chalancon, AK Dunker, A Bateman, S Balaji, M Fuxreiter, MM Babu, Alternative splicing of intrinsically disordered regions and rewiring of protein interactions, Current opinion in structural biology (2013)

M Buljan, G Chalancon, S Eustermann, GP Wagner, M Fuxreiter, A Bateman, MM Babu, Tissue-specific splicing of disordered segments that embed binding motifs rewires protein interaction networks, Molecular cell (2012)

M Buljan, A Frankish, A Bateman, Quantifying the mechanisms of domain gain in animal proteins, Genome biology (2010)

M Buljan, A Bateman, The evolution of protein domain families, Biochemical Society Transactions (2009)