

Curriculum Vitae

Zlatko Trajanoski, PhD

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Personal Details

Date and Place of Birth: 2.2.1964, Skopje, Macedonia
Citizenship: Austrian

Education

1999 Habilitation (venia docendi) for Associate Professor of Biomedical Engineering, Graz University of Technology, Graz, Austria.
1991 – 1995 PhD study, Graz University of Technology, Graz, Austria, Doctorate, with highest honors, Biomedical Engineering
1984 – 1990 Graduate study of Biomedical Engineering, Graz University of Technology, Graz, Austria. M. Sc. (Dipl.-Ing.) in Biomedical Engineering

Research and Professional Experience

2010 – present **Head, Division for Bioinformatics**, Medical University of Innsbruck, Austria
2010 – present **Full Professor for Bioinformatics**, Medical University of Innsbruck, Austria
2004 – 2009 **Head, Institute for Genomics and Bioinformatics**, Graz University of Technology, Graz, Austria
2003 – 2009 **Full Professor for Bioinformatics**, Graz University of Technology, Graz, Austria
2000 – 2001 **Sabbatical Year**, National Institutes of Health, Bethesda, MD/USA
2000 **Visiting Faculty**, The Institute for Genomic Research (TIGR), Rockville, MD/USA
1999 – 2003 **Associate Professor**, Institute of Biomedical Engineering, Graz University of Technology, Graz, Austria
1997 – 1998 **Postdoctoral fellow**, Howard Hughes Medical Institute and Department of Internal Medicine, Yale University, New Haven, CT/USA
1994 – 1999 **Assistant Professor**, Institute of Biomedical Engineering, Graz University of Technology, Graz, Austria

Awards

- Max-Kade Award, 1997, Austrian Academy of Sciences and Max-Kade Foundation Inc., New York, NY/USA (fellowship, 1997 – 1998)
- Stefan-Schuy-Prize 1997, *Austrian Society for Biomedical Engineering*

Major research grants

2018 – 2023 Principal investigator: "Enabling precision immuno-oncology in colorectal cancer", ERC advanced grant (€ 2,500,000)
2015 – 2018 Coordinator: "Advanced bioinformatics platform for personalized cancer immunotherapy", Horizon2020 (€ 3,000,000)
2002 – 2012 Coordinator and principal investigator: "Bioinformatics Integration Network I, II, and III", GEN-AU (GENome AUstria) Programme (total €6,100,000)
2002 – 2009 Director and principal investigator: "Christian-Doppler-Laboratory for Genomics and Bioinformatics" (€ 2,800,000)

Selected Publications

The laboratory of Zlatko Trajanoski published 118 original publications and 13 reviews among which: Bioinformatics, Brief Bioinformatics, Cancer Research, Diabetes, Genome Biology, Gastroenterology, Immunity, Journal of Clinical Oncology, Journal of Cell Biology, Nature Reviews Genetics, New England Journal of Medicine, Nucleic Acids Res, PNAS, and Science. All together his papers have been cited >11,000 times.

- [1] Efremova M, Charoentong P, Finotello F, Klepsch V, Hermann-Kleiter N, Rieder D, Baier G, Krogsdam A, **Trajanoski Z**. Targeting the PD-1/PD-L1 pathway potentiates immunoeediting to counterbalance neutral evolution in a mouse model of colorectal cancer. **Nat Commun**. 2018. 9:32
Impact factor: 12.124; times cited: 6; <https://www.nature.com/articles/s41467-017-02424-0>
- [2] Hackl H*, Charoentong P*, Finotello F*, **Trajanoski Z**. Computational genomics tools for dissecting tumor-immune cell interactions. **Nat Rev Genet**. 2016. 17(8):441-58
Impact factor: 40.282; times cited: 33; <https://www.nature.com/articles/nrg.2016.67>
- [3] Charoentong P*, Finotello F*, Angelova M*, Mayer C, Efremova M, Rieder D, Hackl H, **Trajanoski Z**. Pan-cancer immunogenomic analyses reveal genotype-immunophenotype relationships and predictors of response to checkpoint blockade. **Cell Rep**. 2017. 18:248-262
Impact factor: 8.282; times cited: 79; <https://www.sciencedirect.com/science/article/pii/S2211124716317090>
- [4] Angelova M, Charoentong P, Hackl H, Fischer M, Snajder R, Krogsdam AM, Waldner MJ, Bindea G, Mlecnik B, Galon J, **Trajanoski Z**. Characterization of the immunophenotypes and the antigenomes reveal distinct tumor escape mechanisms and novel targets for immunotherapy of colorectal cancers. **Genome Biol**. 2015. 16:64
Impact factor: 11.908; times cited: 108;
<https://genomebiology.biomedcentral.com/articles/10.1186/s13059-015-0620-6>
- [5] Rainer J, Sanchez-Cabo F, Stocker G, Sturn A, **Trajanoski Z**. CARMAweb: comprehensive R- and bioconductor-based web service for microarray data analysis. **Nucleic Acids Res**. 2006. 34:W498-503.
Impact factor: 10.162; times cited: 147; https://academic.oup.com/nar/article/34/suppl_2/W498/2505475
- [6] Galon J, Costes A, Sanchez-Cabo F, Kirilovsky A, Mlecnik B, Lagorce-Pages C, Tosolini M, Camus M, Berger A, Wind P, Zinzindohoue F, Bruneval P, Cugnenc PH, **Trajanoski Z**, Fridman WH, Pages F. Type, density, and location of immune cells within human colorectal tumors predict clinical outcome. **Science**. 2006. 313(5795):1960-4.
Impact factor: 37.205; times cited: 2578; <http://science.sciencemag.org/content/313/5795/1960.long>
- [7] Pagès F, Camus M, Berger A, Sanchez-Cabo F, Costes A, Molitor R, Kirilovsky A, Nilsson M, Damotte D, Bruneval P, Cugnenc P-H, **Trajanoski Z**, Fridman W-F, Galon J: Control of early-metastatic invasion by effector-memory T-cells predicts increased survival of colorectal cancer. **N Engl J Med**. 2005 353:2654-2666
Impact factor: 79.258; times cited: 1076;
<https://www.nejm.org/doi/pdf/10.1056/NEJMoa051424>
- [8] Hackl H, Burkard TR, Sturn A, Rubio R, Schleiffer A, Tian S, Quackenbush J, Eisenhaber F, **Trajanoski Z**. Molecular processes during fat cell development revealed by gene expression profiling and functional annotation. **Genome Biol**. 2005. 6(13):R108.
Impact factor: 11.908; times cited: 48;
<https://genomebiology.biomedcentral.com/articles/10.1186/gb-2005-6-13-r108>
- [9] Sturn A, Quackenbush J, **Trajanoski Z**: Genesis: Cluster analysis of microarray data. **Bioinformatics**. 2002 18:207-208.
Impact factor: 5.481; times cited: 1111
- [10] **Trajanoski Z**, Wach P: Neural predictive controller for insulin delivery using the subcutaneous route. **IEEE T Bio-Med Eng**. 1998 45, 1122-1134.
Impact factor: 4.288; times cited: 78 <https://ieeexplore.ieee.org/document/709556/>