

Work Experience

- **Assistant Director** (2019-present) Applied Bioinformatics Laboratories (ABL), New York University School of Medicine, **New York University**, NY, USA. (Weblink: <https://med.nyu.edu/research/scientific-cores-shared-resources/applied-bioinformatics-laboratories>)
Applied Bioinformatics Laboratories (ABL) is a team of expert bioinformaticians/data scientists at NYU Langone Health Center. ABL has experts in areas such as; machine learning and deep learning, image analysis and Artificial Intelligence (AI). We have been providing analysis for researchers on large amounts of genetic and medical data and we analyze thousands of samples every year.
- **Senior Bioinformatics Programmer** (2016-2019) at Applied Bioinformatics Laboratories (ABL) and Genome Technology Center (GTC), Division of Advanced Research Technologies (DART), NYU Langone Medical Center, **New York University**, NY, USA.
- **Bioinformatician** (2013-2016) at UAB Stem Cell Institute, Dept. of Biochemistry and Molecular Genetics, **University of Alabama at Birmingham**.
- **Bioinformatician** (2012-2013) at NDAL, Dept. of Molecular Biology and Genetics, **Bogazici University**, Istanbul, Turkey.
- **Lecturer** (2010-2011) in Biochemistry, Computational Biology and Data Science. **Azad University**, Tehran, Iran.

Papers: **NYU bibliography**, **ORCID**, **PubMed**, **Researchgate**

(2022)

1. Ayana Sawai, Sarah Pfennig, Milica Bulajić, Alexander Miller, **Alireza Khodadadi-Jamayran**, Esteban Orlando Mazzoni, Jeremy S Dasen. *PRC1 sustains the integrity of neural fate in the absence of PRC2 function.* **eLIFE** (DOI: 10.7554/eLife.72769)
2. Tomoya Muto, Maria Guillaumot, Jennifer Yeung, Jing Fang, Joshua Bennett, Bettina Nadorp, Audrey Lasry, Luna Zea Redondo, Kwangmin Choi, Yixiao Gong, Callum S. Walker, Kathleen Hueneman, Lyndsey C. Bolanos, Laura Barreyro, Lynn H. Lee, Kenneth D. Greis, Nikita Vasyliiev, **Alireza Khodadadi-Jamayran**, Evgeny Nudler, Amaia Lujambio, Scott W. Lowe, Iannis Aifantis, and Daniel T. Starczynowski. *TRAF6 functions as a tumor suppressor in myeloid malignancies by directly targeting MYC oncogenic activity.* **Cell Stem Cell** (<https://doi.org/10.1016/j.stem.2021.12.007>)
3. Axel R. Concepcion, Larry E. Wagner II, Jingjie Zhu, Anthony Y. Tao, Jun Yang, **Alireza Khodadadi-Jamayran**, Yin-Hu Wang, Menghan Liu, David I. Yule, Stefan Feske. The volume regulated anion channel LRRC8C suppresses T cell function by regulating cyclic dinucleotide transport and STING-p53 signaling. **Nature Immunology** (accepted, in press)
4. Jue Feng, Joseph N. Pucella, Samik Upadhaya, Geunhyo Jang, Madeline Kowalski, Colleen M. Lau, **Alireza Khodadadi-Jamayran**, Marlon Stoeckius, Stephanie Hao, Peter Smibert, Rahul Satija, Aristotelis Tsirigos, Boris Reizis. *Clonal lineage tracing and single-cell transcriptomics elucidate dendritic cell differentiation in vivo.* **Immunity** (accepted, in press)
5. Cuijuan Han, **Alireza Khodadadi-Jamayran**, Adam Hartmann Lorch, Qi Jin, Valentina Serafin, Ping Zhu, Yuliya Politanska, Limin Sun, Yohhei Takahashi, Hiam Abdala-Valencia, Elizabeth Bartom, Kavitha Sarma, Giuseppe Basso, Sadanandan Velu, Aristotelis Tsirigos, Yalu Zhou, Panagiotis Ntziachristos. *SF3B1 homeostasis is critical for survival and therapeutic response in T cell leukemia.* **Science Advances** (accepted, in press)
6. Qingyuan Huang, Fei Li, Hai Hu, Zhaoyuan Fang, Zhendong Gao, Guozhan Xia, Wai-Lung Ng, **Alireza Khodadadi-Jamayran**, Ting Chen, Jiehui Deng, Hua Zhang, Christina Almonte, Kristen Labbe, Han Han, Ke Geng, Sittinon Tang, Gordon J. Freeman, Yuan Li, Haiquan Chen, Kwok-Kin Wong. *Loss of TSC1/TSC2 sensitizes immune checkpoint blockade in non-small-cell lung cancer.* **Science Advances** (accepted, in press)

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7. Audrey A.L. Baeyens, Sabrina Bracero, Venkata S. Chaluvadi, **Alireza Khodadadi-Jamayran**, Michael Cammer, and Susan R. Schwab. *Inflammatory monocyte-derived SIP in the lymph node regulates immune responses.* **Nature** (doi:10.1038/s41586-021-03227-6)
8. Aaron Katzman, **Alireza Khodadadi-Jamayran**, Dana Kapeller-Libermann, Xiaojing Ye, Aristotelis Tsirigos, Adriana Heguy, Cristina M. Alberini. *Distinct transcriptomic profiles in the dorsal hippocampus and prelimbic cortex are transiently regulated following episodic learning.* **JNeuroscience** (DOI: 10.1523/JNEUROSCI.1557-20.2021)
9. Johannes Hartl, Lee Serpas, Yueyang Wang, Ali Rashidfarrokhi, Oriana A. Perez, Benjamin Sally, Vanja Sisirak, Chetna Soni, **Alireza Khodadadi-Jamayran**, Aristotelis Tsirigos, Ivan Caiello, Claudia Bracaglia, Stefano Volpi, Gian Marco Ghiggeri, Asiya Seema Chida, Iñaki Sanz, Mimi Y. Kim, H. Michael Belmont, Gregg J. Silverman, Robert M. Clancy, Peter M. Izmirly, Jill P. Buyon, Boris Reizis. *Autoantibody-mediated impairment of DNASE1L3 activity in sporadic systemic lupus erythematosus.* **JEM** (DOI: 10.1084/jem.20201138)
10. Milessa Silva Afonso, Monika Sharma, Martin Schlegel, Coen van Solingen, Graeme J. Koelwyn, Lianne Shanley, Lauren Beckett, Daniel Peled, Karishma Rahman, Emily J. Brown, **Alireza Khodadadi-Jamayran**, Edward A. Fisher, Kathryn J. Moore. *miR-33 silencing reprograms the immune cell landscape in atherosclerotic plaques.* **Circulation Research** (DOI: 10.1161/CIRCRESAHA.120.317914)
11. Christopher J. Schwartz, Amir Momeni Boroujeni, **Alireza Khodadadi-Jamayran**, Adriana Heguy, Matija Snuderl, George Jour, Paolo Cotzia, Farbod Darvishian. *Molecular Analysis of Encapsulated Papillary Carcinoma of the Breast with and without Invasion.* **Human Pathology** (DOI: 10.1016/j.humpath.2021.02.005)
12. Seo Rin Kim, Amrutesh S. Puranik, Kai Jiang, Xiaojun Chen, Xiang-Yang Zhu, Ian Taylor, **Alireza Khodadadi-Jamayran**, Amir Lerman, LaTonya J. Hickson, Stephen C. Textor, Tamara Tchkonja, Timothy B. Niewold, James L. Kirkland, Lilach O. Lerman. *Progressive Cellular Senescence Mediates Renal Dysfunction in Ischemic Nephropathy.* **JASN** (DOI: 10.1681/ASN.2020091373)
13. Kwan Ho Tang, Shuai Li, **Alireza Khodadadi-Jamayran**, Jayu Jen, Han Han, Kayla Guidry, Ting Chen, Yuan Hao, Carmine Fedele, John A Zebala, Dean Y Maeda, James G Christensen, Peter Olson, Argus Athanas, Cynthia A Loomis, Aristotelis Tsirigos, Kwok-Kin Wong and Benjamin G Neel. *Combined Inhibition of SHP2 and CXCR1/2 Promotes Anti-Tumor T Cell Response in NSCLC.* **Cancer Discovery** (DOI: 10.1158/2159-8290.CD-21-0369)
14. Hai Hu, **Alireza Khodadadi-Jamayran**, Igor Dolgalev, Hyunwoo Cho, Sana Badri, Luis A Chiriboga, Briana Zeck, Miguel Lopez De Rodas Gregorio, Catriona M. Dowling, Kristen Labbe, Jiehui Deng, Ting Chen, Hua Zhang, Paul Zappile, Ze Chen, Beatrix Ueberheide, Angeliki Karatza, Han Han, Michela Ranieri, Sittinon Tang, George Jour, Iman Osman, Antje Sucker, Dirk Schadendorf, Aristotelis Tsirigos, Kurt A. Schalper, Vamsidhar Velcheti, Hsin-Yi Huang, Yujuan Jin, Hongbin Ji, John T Poirier, Fei Li and Kwok-Kin Wong. *Targeting the Atf7ip-Setdb1 complex augments antitumor immunity by boosting tumor immunogenicity.* **Cancer Immunology Research** (DOI: 10.1158/2326-6066.CIR-21-0543)
15. Shuai Li, Kwan Ho Tang, **Alireza Khodadadi-Jamayran**, Jayu Jen, Han Han, Kayla Guidry, Ting Chen, Yuan Hao, Carmine Fedele, John A Zebala, Dean Y Maeda, James G Christensen, Peter Olson, Argus Athanas, Kwok-Kin Wong and Benjamin G Neel. *OA12.03 Combined Inhibition of SHP2 and CXCR1/2 Promotes Anti-Tumor T Cell Response in NSCLC.* **Journal of Thoracic Oncology** (DOI: 10.1016/j.jtho.2021.08.074)
16. Anderson Chang, Jayu Jen, Shaowen Jiang, Azin Sayad, Arvind Singh Mer, Kevin R Brown, Allison M L Nixon, Avantika Dhabaria, Kwan Ho Tang, David Venet, Christos Sotiriou, Jiehui Deng, Kwok-Kin Wong, Sylvia Adams, Peter Meyn, Adriana Heguy, Jane A Skok, Aristotelis Tsirigos, Beatrix Ueberheide, Jason Moffat, Abhyudai Singh, Benjamin Haibe-Kains, **Alireza Khodadadi-Jamayran**, Benjamin G Neel. *Ontogeny and Vulnerabilities of Drug-Tolerant Persisters in HER2+ Breast Cancer.* **Cancer Discovery** (DOI: 10.1158/2159-8290.CD-20-1265)

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17. Ariadna Giro-Perafita, Liang Luo, **Alireza Khodadadi-Jamayran**, Marae Thompson, Betul Akgol Oksuz, Aristotelis Tsirigos, Brian D. Dynlacht, Irma Sánchez, Francisco J. Esteva. *LncRNA RP11-19E11 is an E2F1 target required for proliferation and survival of basal breast cancer*. ***npj Breast Cancer*** (DOI: 10.1038/s41523-019-0144-4)

18. Nicholas Frazzette, **Alireza Khodadadi-Jamayran**, Nicole Doudican, Alexis Santana, Diane Felson, Aristotelis Tsirigos, John Carruci. *Decreased cytotoxic T cells and TCR clonality in organ transplant recipients with squamous cell carcinoma*. ***Nature Precision Oncology*** (DOI: 10.1038/s41698-020-0119-9)

19. Yalu Zhou, Cuijuan Han, Eric Wang, Adam H. Lorch, Valentina Serafin, Szymon K. Filip, Blanca T. Gutierrez Diaz, Julien Calvo, Celestia Fang, Tommaso Tabaglio, Christian Marier, Anna Kuchmiy, Limin Sun, George Yacu, Byoung-Kyu Cho, Qi Jin, Yoh-hei Takahashi, David R. Amici, Emily J. Rendleman, Radhika Rawat, Silvia Bresolin, Maddalena Paganin, Cheng Zhang, Hu Li, Irawati Kandela, Yuliya Politanska, Hiam Abdala-Valencia, Marc L. Mendillo, Ping Zhu1, Pieter Van Vlierberghe1, Tom Taghon, Iannis Aifantis, Young Ah Goo, **Alireza Khodadadi-Jamayran**, Aristotelis Tsirigos, Ernesto Guccione, Adriana Heguy, Dave Ken Boon, Rama Mishra, Francoise Pflumio, Benedetta Accordi, Giuseppe Basso, Panagiotis Ntziachristos. *Posttranslational regulation of the exon skipping machinery controls aberrant splicing in leukemia*. ***Cancer Discovery*** (doi:10.1158/2159-8290.CD-19-1436)

20. Sascha Kahlfuss, Ulrike Kaufmann, Martin Vaeth, Jun Yang, Mate Maus, James Muller, Lina Kozhaya, David Suh, **Alireza Khodadadi-Jamayran**, Zhengxi Sun, Priya Pancholi, Patrick Shaw, Derya Unutmaz, Peter Stathopoulos, Cori Feist, Scott Cameron, Stuart Turvey, Stefan Feske. *STIM1-ORAI1 interaction is required for Th17 cell metabolism and antifungal immunity*. ***EMBO Molecular Medicine*** (<https://doi.org/10.15252/emmm.201911592>)

21. Fei Li, Wai-Lung Ng, Troy A. Luster, Hai Hu, Vladislav O. Sviderskiy, Catriona M. Dowling, Katy Hollinshead, Paula Zouitine, Hua Zhang, Qingyuan Huang, Michela Ranieri, Wei Wang, Zhaoyuan Fang, Ting Chen, Jiehui Deng, Kai Zhao, Hon-Cheong So, **Alireza Khodadadi-Jamayran**, Mousheng Xu, Val Pyon, Shuai Li, Yuanwang Pan, Kristen Labbe, Christina Almonte, John T. Poirier, George Miller, Richard Possemato, Alec C. Kimmelman, Jun Q, Kwok-Kin Wong. *Epigenetic CRISPR screens identify Npm1 as a therapeutic vulnerability in non-small cell lung cancer*. ***Cancer Research*** (DOI: 10.1158/0008-5472.CAN-19-3782)

(PrePrint) **Alireza Khodadadi-Jamayran**, Aristotelis Tsirigos. *Graph Drawing-based Dimensionality Reduction to Identify Hidden Communities in Single-Cell Sequencing Spatial Representation*. **Preprint:BioRxiv** (<https://doi.org/10.1101/2020.05.05.078550>) (2020) (co-corresponding author)

(PrePrint) **Alireza Khodadadi-Jamayran**, Joseph Pucella, Hua Zhou, Nicole Doudican, John Carucci, Adriana Heguy, Boris Reizis, Aristotelis Tsirigos. *iCellR: Combined Coverage Correction and Principal Component Alignment for Batch Alignment in Single-Cell Sequencing Analysis*. **Preprint:BioRxiv** (<https://doi.org/10.1101/2020.03.31.019109>) (2020) (co-corresponding author)

22. Nicole Doudican, Nicholas Frazzette, **Alireza Khodadadi-Jamayran**, Aristotelis Tsirigos, John Carruci. *137 Decreased cytotoxic T cells, decreased cytotoxic/regulatory T-cell ratio, and decreased TCR clonality are associated with increased numbers of primary cutaneous squamous cell carcinomas in solid organ transplant recipients*. ***Journal of Investigative Dermatology*** (DOI:<https://doi.org/10.1016/j.jid.2020.03.140>)

23. Berk Aykut, Jacqueline I. Kim, Ruonan Chen, Pamela Preiss, Raquel Abengozar, Sorin A. Shadaloey, Dongling Wu, Johana Gutierrez, Smruti Pushalkar, Kaitlyn Kennedy, Robert Banh, Eduardo Morales-Vicente, Ki Buom Lee, Ivan Gando, Brian Diskin, Joshua Leinwand, Emma Kurz, Juan A. Kochen Rossi, **Alireza Khodadadi-Jamayran**, Martin Vaeth, Mirhee Kim, Michael E. Pacold, Deepak Saxena, Stefan Feske, William Coetzee, George Miller. *Targeting Piezo1 Unleashes Protective Innate and Adaptive Immunity Against Cancer and Infectious Disease*. ***Science Imm.*** (DOI: 10.1126/sciimmunol.abb5168)

24. Naoko Yamaguchi, Junhua Xiao, Deven Narke, Devin Shaheen, Xianming Lin, Erik Offerman, **Alireza Khodadadi-Jamayran**, Akshay Shekhar, Alex Choy, David Van Wagoner, Mina Chung, David S. Park. *Cardiac pressure overload decreases ETV1 expression in the left atrium, contributing to atrial electrical and structural remodeling*. ***Circulation*** (DOI: 10.1161/CIRCULATIONAHA.120.048121)

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25. Andrew N. Banin, Michael Tuen, Jude S. Bimela, Marcel Tongo, Paul Zappile, **Alireza Khodadadi-Jamayran**, Aubin J. Nanfack, Josephine Meli, Xiaohong Wang, Dora Mbanya, Jeanne Ngogang, Adriana Heguy, Phillipe N. Nyambi, Charles Fokunang, Ralf Duerr. *Development of a Versatile, Near Full Genome Amplification and Sequencing Approach for a Broad Variety of HIV-1 Group M Variant*. ***Viruses*** (<https://doi.org/10.3390/v11040317>)

26. Doudican, N A; Santana, A; Felsen, D, **Alireza Khodadadi-Jamayran**, Aristotelis Tsirigos, Carucci,J. *135 Defining the T cell landscape and neoantigens via T-cell receptor sequencing and gene expression profiling in cutaneous squamous cell carcinoma*. ***Journal of Investigative Dermatology*** (<https://doi.org/10.1016/j.jid.2019.03.211>)

27. Zhenhua Yang, Kushani Shah, **Alireza Khodadadi-Jamayran** Hao Jiang. *Control of Hematopoietic Stem Cell Function Through Epigenetic Regulation of Energy Metabolism and Genome Integrity*. ***Stem Cell Reports*** (DOI:<https://doi.org/10.1016/j.stemcr.2019.05.023>)

28. Evelyn Tassone, Markus Schober, Vivian Bradaschia-Correa, Xiaozhong Xiong, Ana Sastre Perona, Anne Marie Josephson, **Alireza Khodadadi-Jamayran**, Jonathan Melamed, Lei Bu, David Kahler, Liliana Ossowski, Philipp Leucht, Elaine L Wilson. *KLF4 as a rheostat of osteolysis and osteogenesis in PC3 prostate tumors in the bone*. ***Oncogene*** (<https://doi.org/10.1038/s41388-019-0841-3>)

29. Banin, Andrew; Tuen, Michael; Bimela, Jude; Tongo, Marcel; Zappile, Paul; **Khodadadi-Jamayran, Alireza**; Nanfack, Aubin; Okonko, Iheanyi; Meli, Josephine; Wang, Xiaohong; Mbanya, Dora; Ngogang, Jeanne; Gorny, Mirosław; Heguy, Adriana; Nyambi, Phillipe; Fokunang, Charles; Duerr, Ralf. *Near Full Genome Characterization of HIV-1 Unique Recombinant Forms in Cameroon reveals dominant CRF02_AG and F2 recombination patterns*. ***Journal of the International AIDS Society (JIAS)*** (<https://doi.org/10.1002/jia2.25362>) (2019)

30. Tomoya Muto, Maria Guillaumot, Jing Fang, Luna Zea Redondo, Kwangmin Choi, Yixiao Gong, Callum S Walker, Kathleen Hueneman, Lyndsey C Bolanos, Laura Barreyro, Lynn Lee, Kenneth D Greis, **Alireza Khodadadi-Jamayran**, Amaia Lujambio, Scott W Lowe, Iannis Aifantis, Daniel T Starczynowski. *Innate Immune Signaling Suppresses Acute Leukemia By Modifying MYC Oncogenic Activity*. ***Blood*** (<https://doi.org/10.1182/blood-2019-121423>)

31. Fei Li, Qingyuan Huang, Troy A Luster, Hai Hu, Hua Zhang, Wai-Lung Ng, **Alireza Khodadadi-Jamayran**, Wei Wang, Ting Chen, Jiehui Deng, Michela Ranieri, Zhaoyuan Fang, Val Pyon, Catriona M. Dowling, Ece Bagdatlioglu, Christina Almonte, Kristen Labbe, Heather Silver, Alexandra R Rabin, Kandarp Jani, Aristotelis Tsirigos, Thales Papagiannakopoulos, Peter S. Hammerman, Vamsidhar Velcheti, Gordon J. Freeman, Jun Qi, George Miller and Kwok-Kin Wong. *In vivo epigenetic CRISPR screen identifies Asf1a as an immunotherapeutic target in Kras-mutant lung adenocarcinoma*. ***Cancer Discovery*** (DOI: 10.1158/2159-8290.CD-19-0780)

(2018)

32. **Alireza Khodadadi-Jamayran**, Betul Akgoloksuz, Yelena Afanasyeva, Adriana Heguy, Marae Thompson, Karina Ray, Ariadna Giro, Irma Sanchez, Brian Dynlacht, Xifeng Wu, Debu Tripathy, Anne Zeleniuch-Jacquotte, Aristotelis Tsirigos* and Francisco J. Esteva4*. *High plasma levels of mir-24-3p predict occult metastasis in early-stage breast cancer*. ***Oncotarget*** (<https://doi.org/10.18632/oncotarget.24403>) ([Journal cover](#))

33. Jorge A Benitez, Jianhui Ma, Matteo D’Antonio, Antonia Boyer, Maria Fernanda Camargo, Ciro Zanca, Stephen Kelly, **Alireza Khodadadi-Jamayran**, Nathan M Jameson, Michael Andersen, Hrvoje Miletic, Shahram Saberi, Kelly A Frazer, Webster K Cavenee, Frank B Furnari. *Publisher Correction: PTEN regulates glioblastoma oncogenesis through chromatin-associated complexes of DAXX and histone H3.3*. ***Nature Communications*** (DOI: 10.1038/ncomms16217)

34. Zhenhua Yang, Kushani Shah, Theodore Busby, Keith Giles, **Alireza Khodadadi-Jamayran**, Wei Li, Hao Jiang. *Hijacking a key chromatin modulator creates epigenetic vulnerability for Myc-driven cancer*. ***JCI***. (doi:[10.1172/JCI97072](https://doi.org/10.1172/JCI97072))

35. Margaret E. Kirkling, Urszula Cytlak, Colleen M. Lau, Kanako L. Lewis, Anastasia Resteu, **Alireza Khodadadi-Jamayran**, Christian W. Siebel, Helen Salmon, Miriam Merad, Aristotelis Tsirigos, Matthew Collin, Venetia Bigley, Boris Reizis. *Notch signaling facilitates in vitro generation of cross-presenting classical dendritic cells*. ***Cell Rep.*** (<https://doi.org/10.1016/j.celrep.2018.05.068>)

36. Matthew Smith-Raska, Teresita Arenzana, Louise D'Cruz, **Alireza Khodadadi-Jamayran**, Aristotelis Tsirigos, Ananda Goldrath, Boris Reizis. *The Transcription Factor Zfx Regulates Peripheral T Cell Self-Renewal and Proliferation*. ***Frontiers in Immunology*** (doi: 10.3389/fimmu.2018.01482)

37. Akshay Shekhar, Xianming Lin, Bin Lin, Fang-Yu Liu, Jie Zhang, **Alireza Khodadadi-Jamayran**, Aristotelis Tsirigos, Lei Bu, Glenn I Fishman, David S Park. *ETV1 activates a rapid conduction transcriptional program in rodent and human cardiomyocytes*. ***Nature SRep*** (DOI:10.1038/s41598-018-28239-7)

38. Brie Wamsley, Xavier Hubert Jaglin, Emilia Favuzzi, Giulia Quattrocchio, Maximiliano José Nigro, Nusrath Yusuf, **Alireza Khodadadi-Jamayran**, Bernardo Rudy, Gord Fishell. *Rbfox1 Mediates Cell-type-Specific Splicing in Cortical Interneurons*. **Neuron** (https://doi.org/10.1016/j.neuron.2018.09.026)

39. Xiaozhong Xiong, Evelyne Tassone, **Alireza Khodaddi-Jamayran**, Ana Sastre Perona, Hua Zhou, Aristotelis Tsirigos, Steven Shen, Miao Chang, Jonathan Melamed, Markus Schober, Liliana Ossowski, Elaine L Wilson. A gene regulating prostate stem cell homeostasis is a barrier to malignant transformation and progression. **Cell Report**. (https://doi.org/10.1016/j.celrep.2018.11.065) ([Journal cover](#))

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40. Jorge A Benitez, Jianhui Ma, Matteo D’Antonio, Antonia Boyer, Maria Fernanda Camargo, Ciro Zanca, Stephen Kelly, **Alireza Khodadadi-Jamayran**, Nathan M Jameson, Michael Andersen, Hrvoje Miletic, Shahram Saberi, Kelly A Frazer, Webster K Cavenee, Frank B Furnari. *PTEN regulates glioblastoma oncogenesis through chromatin-associated complexes of DAXX and histone H3.3*. **Nature Communications** (doi:2017:8:15223-15223)

41. Zhong Liu, Cheng Zhang, Maria Skamagki, **Alireza Khodadadi-Jamayran**, Wei Zhang, Dexin Kong, Chia-Wei Chang, Jingyang Feng, Xiaosi Han, Tim M. Townes, Hu Li, Kitai Kim, Rui Zhao. *Elevated p53 Activities Restrict Differentiation Potential of MicroRNA-Deficient Pluripotent Stem Cells*. **Stem Cell Reports** (doi:http://dx.doi.org/10.1016/j.stemcr.2017.10.006)

(2016)

42. Zhicheng Shao, Ruowen Zhang, **Alireza Khodadadi-Jamayran**, Bo Chen, Michael R. Crowley, Muhamad A. Festok, David K. Crossman, Tim M. Townes, Kejin Hu. *The acetyllysine reader BRD3R promotes human nuclear reprogramming and regulates mitosis*. **Nature Communications** (doi:10.1038/ncomms10869)

43. Lei Kang, Chunping Yao, **Alireza Khodadadi-Jamayran**, Weihua Xu, Ruowen Zhang, Nilam Sanjib Banerjee, Chia-Wei Chang, Louise T Chow, Tim Townes, Kejin Hu. *The universal 3D3 antibody of human PODXL is pluripotent cytotoxic, and identifies a residual population after extended differentiation of pluripotent stem cells*. **Stem Cells and Development** (doi:10.1089/scd.2015.0321, 2016 Feb 17)

44. Ngoc-Tung Tran, Hairui SU, **Alireza Khodadadi-Jamayran**, Shan Lin, li zhang, Dewang Zhou, Kevin Pawlik, Tim Townes, James C. Mulloy, Xinyang Zhao. *The AS-RBM15 lncRNA enhances RBM15 protein translation during megakaryocyte differentiation*. **EMBO Reports** (DOI 10.15252/embr.201541970)

45. Angela D Bhalla, **Alireza Khodadadi-Jamayran**, Yanjie Li, David R. Lynch, Marek Napierala. *Deep sequencing of mitochondrial genomes reveals increased mutation load in Friedreich’s Ataxia*. **Annals of Clinical and Translational Neurology** (DOI: DOI: 10.1002/acn3.322)

46. Chao Li, Lei Ding, Chiao-Wang Sun, Li-Chen Wu, Dewang Zhou, Kevin M. Pawlik, **Alireza Khodadadi-Jamayran**, Erik Westin, Tim M. Townes. *Novel HDAd/EBV Reprogramming Vector and Highly Efficient Ad/CRISPR-Cas Sickie Gene Correction*. **Nature SRep** (DOI: 10.1038/srep30422)

47. Zhicheng Shao*, Chunping Yao*, **Alireza Khodadadi-Jamayran***, Weihua Xu, Tim M. Townes, Michael R. Crowley, Kejin Hu. *Reprogramming by De-bookmarking the Somatic Transcriptional Program through Targeting of BET Bromodomains*. **Cell Reports** http://dx.doi.org/10.1016/j.celrep.2016.08.060 (**Co-first author**). (**2016**)

48. Zhenhua Yang, Kushani Shah, **Alireza Khodadadi-Jamayran**, Hao Jiang. Dpy30 Is Critical for Maintaining the Identity and Function of Adult Hematopoietic Stem Cells. **JEM, Journal of Experimental Medicine** doi:10.1084/jem.20160185 (**2016**)

49. Jing Hu, **Alireza Khodadadi-Jamayran**, Miaowei Mao, Kushani Shah, Zhenhua Yang, Talat Nasim, Zefeng Wang, Hao Jiang. *AKAP95 regulates splicing through scaffolding RNAs and RNA processing factors*. **Nature Communications** (doi:10.1038/ncomms13347)

50. Zhong Liu , Cheng Zhang , **Alireza Khodadadi-Jamayran** , Lam Dang , Xiaosi Han , Kitai Kim , Hu Li , Rui Zhao. *Canonical microRNAs enable differentiation, protect against DNA damage and promote cholesterol biosynthesis in neural stem cells*. **Stem Cells and Development** (doi:10.1089/scd.2016.0259)

51. M. Yazdian, R. Ahmadi, K. Roshanai, A. Kamali, **A Khodadadi-Jamayran**, et al. *Chronic effects of the exhaust from gasoline fueled motors on some of the hematological parameters in male rats*. **Applied Biology**. Vol. 1., No.1, 30-39

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52. Wei Chang, Yi-Shin Lai1, Erik Westin, **Alireza Khodadadi-Jamayran**, Kevin M. Pawlik, Lawrence S. Lamb Jr., Frederick D. Goldman and Tim M. Townes. *Modeling Human Severe Combined Immunodeficiency and Correction by CRISPR/Cas9 Enhanced Gene Replacement*. **Cell Reports** (volume 12, issue 10 p1668–1677, 8 September 2015)

53. Li Zhang, Ngoc-Tung Tran, Hairui Su, Rui Wang, Yuheng Lu, Haiping Tang, Ailan Guo, **Alireza Khodadadi-Jamayran**, Dewang Zhou, Kun Qian, Todd Hricik, Jocelyn Côté, Xiaosi Han, Wenping Zhou, Suparna Laha, Omar Abdel-Wahab, Ross Levine, Glen Raffel, Yanyan Liu, Dongquan Chen, Haitao Li, Tim Townes, Hengbin Wang, Haiteng Deng, Y. George Zheng, Christina Leslie, Minkui Luo, and Xinyang Zhao. *Cross-talk between PRMT1-mediated arginine methylation and ubiquitylation on RBM15 controls RNA splicing*. **eLIFE** (doi: 10.7554/eLife.07938)

Multimedia and News

- 2021: Science daily, NYU news. About our paper in Nature. [Link](#) (print)
- 2020: NYU hospital, single cell club. My talk about KNetL map, a dimensionality reduction I developed. [Link](#) (Video)
- 2019: NYU hospital, single cell club. My talk about iCellR, an R software package I developed. [Link](#) (Video)
- **2018: EurekAlert (AAAS)**, science magazine’s news outlet about our paper in Oncotarget. [Link](#) (Video, audio and print)
- 2017: Science daily, UAB news. About our paper in Stem Cell Reports. [Link](#) (Print)
- 2017: Newswise, MedicalXpress, Science Newslane, Health Medicinet; about a paper in Nature Communications. [Link](#) (Print)
- 2016: Alabama New Center; paper in Nature SREP. [Link](#) (Video)
- 2016: UAB news, Newswise, Phys.org, Science Daily; about one of our papers in Nature Communications. [Link](#) (Print)
- 2016: Birmingham Museum of Art. Consilience – A Conversation Between Art & Science. [Link](#) (A short film)
- 2016: UAB news; about one of our papers in Cell Reports. [Link](#) (Print)
- 2015: Local National Public Radio (NPR); about one of our papers in Cell Reports. [Link](#) (Audio)
- 2015: UAB news; about one of our papers eLIFE. [Link](#) (Print)

Education

- **M.Sc. Genetics (Bioinformatics)**, Osmania University, Hyderabad, India, 2008-2010
- **B.Sc. Biology (Zoology)**, Azad University, Qom Branch, Iran 2003-2007

Skills and Languages

- **Bioinformatics Skills**
 - **Next Generation Sequencing (NGS) data analysis** (Whole Genome and Exome Sequencing, ChIP-Seq, RNA-Seq, RIP-Seq, CLIP-Seq, OK-Seq, PAR-CLIP-Seq, GRO-Seq, exosome&exRNA-Seq, cfDNA-Seq, HTGT-Seq, CRISPR-Library-Seq/Screening-Seq, Guide-Seq, Ribo-Seq, meta-genomics, 16S-Seq, ATAC-Seq, FAIR-Seq, DNaseq-Seq, ultra-deep mtDNA and targeted sequencing, 4C-Seq, TT-Seq, MapR, CUT&RUN-Seq, GWAS, Array data, single cell RNA-Seq, scVDJ-Seq, CITE-Seq, Spatial Transcriptomics, long read sequencing: MinION, PromethION, PacBio, Iso-Seq/PacBio-RNA-seq, etc.)

- Analyzed thousands of samples every year for the labs at the UAB Stem Cell Institute, Department of Biochemistry and Molecular Genetics and currently at Langone Medical Center at New York University. I have experience handling and analyzing large data sets from TCGA, 1000 Genomes Project, ENCODE, NCBI's SRA, GEO, etc.
- **Statistics**
 - **Skilled/Developer level in statistical programming language R (I'm a CRAN developer)**; Working with hundreds of R packages. One of the R packages I developed is iCellR: <https://cran.r-project.org/package=iCellR>. Building model based complex statistical tests and visualizations. I have developed a network based dimensionality reduction called KNetL (first published in Cancer Discovery. For more details: <https://youtu.be/tkoPTVciQm0>)
- **Computer Science**
 - **Skilled in Shell Scripting (Bash), AWK, sed** (*stream editor*), **R**(*worked with hundreds of packages, developer level*), **Python** and intermediate in; **Perl**. <https://github.com/rezakj>
 - **Server management**: Administered two servers at the UAB Stem Cell Institute and Dept. of Biochemistry and Molecular Genetics. These servers were providing SSH, FTP, SAMBA, X server and a local Galaxy cloud instant.
 - Handling terabyte-sized data, processing and manipulating large text-based files, working in HPC environments and Grid Computing (SGE, PBS, LSF)
- **Languages**: Native language: **Persian / Farsi**, fluent: **English and Azeri**, Proficient: **Turkish**