Maurizio Morri, PhD, MBA

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Director-level scientist with over a decade of experience in academia and industry, specializing in molecular biology. Proven success in managing multi-disciplinary teams, leading research projects, and developing innovative multi-omics techniques.

Passionate about driving scientific breakthroughs through collaboration and innovation.

PROFESSIONAL EXPERIENCE

ALTOS LABS **Redwood City, CA**
Director of Genomics *October 2022–Present*

- Responsible for adopting and developing new multi-omics techniques to address aging and stress response in humans.
- Manager of the multi-omics and spatial transcriptomic platform hosted by the Genomic Hub.
- Liaison between the Genomic Hub at different Altos sites (San Diego and Cambridge, UK).
- Budget owner and final decision maker for instrument purchases for the BAI Genomic Hub.

CHAN ZUCKERBERG BIOHUB **Palo Alto, CA**
Research and Operation Manager *January 2019–October 2022*

- Oversaw the budget, instrument purchases, and laboratory techniques at the Chan Zuckerberg Biohub (CZB) Stanford site.
- Managed all CZB Stanford facilities, including NGS, Proteomics and Metabolomics, Biobanking, and Outreach, and implemented the spatial transcriptomics platform.
- Led the Big Data Storage and Analysis platform setup for multi-omics data, supervised daily activities and career development of direct reports, and coordinated multiplatform research projects.
- Acted as the critical liaison between CZB and Stanford School of Medicine and managed multiple high-profile research projects and initiatives, including the Tabula Sapiens project and Infectious Disease Initiative.

CHAN ZUCKERBERG BIOHUB **San Francisco, CA**
Research Scientist *April 2018–January 2019*

- Served as Scientist in the Genome Engineering unit of the Chan Zuckerberg Biohub in Mission Bay.
- Acted as Scientific Manager for several CRISPR/Cas9-based projects.

- Led the development of a high-throughput gene editing pipeline for modifying human immune cells for gene therapy (Trojan Horse).
- Managed projects on sequencing DNA filaments from human neutrophils (nETS) and using CRISPR/Cas9 for spatial identification of human protein distribution in tissues (In situ transcriptomics).

EDUCATION

STANFORD UNIVERSITY — **Palo Alto, CA**
Postdoctoral Research Scientist — *October 2016-April 2018*
Cardiovascular Medicine, Prof. Ingelsson

IST - Austria — **Vienna, Austria**
Graduate Student — *March 2011-May 2016*
Optical Characterization of Orphan GPCRs, Prof. Janovjak

University of Trieste — **Trieste, Italy**
Master of Science — *September 2008-March 2011*
Condensed Matter Physics

University of Rome — **Rome, Italy**
Bachelor of Science — *September 2005-July 2008*
Theoretical Physics

ADDITIONAL STUDIES

QUANTIC SCHOOL OF BUSINESS — **Remote, USA**
MBA — *2022*

WESTERN GOVERNOR UNIVERSITY — **Remote, USA**
Master in Cybersecurity — *2024*

PUBLICATIONS

1. Wu TT, Travaglini KJ, Rustagi A, Xu D, Zhang Y, Andronov L, Jang S, Gillich A, Dehghannasiri R, Martínez-Colón GJ, Beck A, Liu DD, Wilk AJ, **Morri M**, Trope WL, Bierman R, Weissman IL, Shrager JB, Quake SR, Kuo CS, Salzman J, Moerner WE, Kim PS, Blish CA, Krasnow MA. Interstitial macrophages are a focus of viral takeover and inflammation in COVID-19 initiation in human lung. J Exp Med. 2024 Jun 3;221(6). doi: 10.1084/jem.20232192. Epub 2024 Apr 10. PMID: 38597954

2. Liu S, Ezran C, Wang MFZ, Li Z, Awayan K; Tabula Microcebus Consortium; Long JZ, De Vlaminck I, Wang S, Epelbaum J, Kuo CS, Terrien J, Krasnow MA, Ferrell JE Jr. An organism-wide atlas of hormonal signaling based on the mouse lemur single-cell transcriptome. Nat Commun. 2024 Mar 11;15(1):2188. doi: 10.1038/s41467-024-46070-9. PMID: 38467625

3. Swarup A, Phansalkar R, **Morri M**, Agarwal A, Subramaniam V, Li B, Wu AY. Single-cell transcriptomic analysis of corneal organoids during development. Stem Cell Reports. 2023 Dec 12;18(12):24822497. doi: 10.1016/j.stemcr.2023.10.022. Epub 2023 Nov 30. PMID: 38039970

4. COVID Tissue Atlas Consortium; Granados AA, Bucher S, Song H, Agrawal A, Chen AT, Peng T, Neff N, Pisco AO, Huang F, Wang B. Single-nuclei characterization of pervasive transcriptional signatures across organs in response to COVID-19. Elife. 2023 Oct 13;12. doi: 10.7554/eLife.81090. PMID: 37830426

5. Juul NH, Yoon JK, Martinez MC, Rishi N, Kazadaeva YI, **Morri M**, Neff NF, Trope WL, Shrager JB, Sinha R, Desai TJ. KRAS(G12D) drives lepidic adenocarcinoma through stem-cell reprogramming. Nature. 2023 Jul;619(7971):860-867. doi: 10.1038/s41586-023-06324-w. Epub 2023 Jul 19. PMID: 37468622

6. Hoover MY, Ambrosi TH, Steininger HM, Koepke LS, Wang Y, Zhao L, Murphy MP, Alam AA, Arouge EJ, Butler MGK, Takematsu E, Stavitsky SP, Hu S, Sahoo D, Sinha R, **Morri M**, Neff N, Bishop J, Gardner M, Goodman S, Longaker M, Chan CKF. Purification and functional characterization of novel human skeletal stem cell lineages. Nat Protoc. 2023 Jul;18(7):2256-2282. doi: 10.1038/s41596-02300836-5. Epub 2023 Jun 14. PMID: 37316563

7. Liu DD, He JQ, Sinha R, Eastman AE, Toland AM, **Morri M**, Neff NF, Vogel H, Uchida N, Weissman IL. Purification and characterization of human neural stem and progenitor cells. Cell. 2023 Mar 16;186(6):1179-1194.e15. doi: 10.1016/j.cell.2023.02.017. PMID: 36931245

8. Sarkar A, Jin Y, DeFelice BC, Logan CY, Yang Y, Anbarchian T, Wu P, **Morri M**, Neff NF, Nguyen H, Rulifson E, Fish M, Kaye AG, Martínez Jaimes AM, Nusse R. Intermittent fasting induces rapid hepatocyte proliferation to restore the hepatostat in the mouse liver. Elife. 2023 Jan 31;12. doi: 10.7554/eLife.82311. PMID: 36719070

9. Parikh VN, Ioannidis AG, Jimenez-Morales D, Gorzynski JE, De Jong HN, Liu X, Roque J, CepedaEspinoza VP, Osoegawa K, Hughes C, Sutton SC, Youlton N, Joshi R, Amar D, Tanigawa Y, Russo D,
Wong J, Lauzon JT, Edelson J, Mas Montserrat D, Kwon Y, Rubinacci S, Delaneau O, Cappello L, Kim J, Shoura MJ, Raja AN, Watson N, Hammond N, Spiteri E, Mallempati KC, Montero-Martín G, Christle J, Kim J, Kirillova A, Seo K, Huang Y, Zhao C, Moreno-Grau S, Hershman SG, Dalton KP, Zhen J, Kamm J, Bhatt KD, Isakova A, **Morri M**, Ranganath T, Blish CA, Rogers AJ, Nadeau K, Yang S, Blomkalns A, O'Hara R, Neff NF, DeBoever C, Szalma S, Wheeler MT, Gates CM, Farh K, Schroth GP, Febbo P, deSouza F, Cornejo OE, Fernandez-Vina M, Kistler A, Palacios JA, Pinsky BA, Bustamante CD, Rivas MA, Ashley EA. Deconvoluting complex correlates of COVID-19 severity with a multi-omic pandemic tracking strategy. Nat Commun. 2022 Aug 30;13(1):5107. doi: 10.1038/s41467022-32397-8. PMID: 36042219

10. Hughes NW, Qu Y, Zhang J, Tang W, Pierce J, Wang C, Agrawal A, **Morri M**, Neff N, Winslow MM, Wang M, Cong L. Machine-learning-optimized Cas12a barcoding enables the recovery of single-cell lineages and transcriptional profiles. Mol Cell. 2022 Aug 18;82(16):3103-3118.e8. doi: 10.1016/j.molcel.2022.06.001. Epub 2022 Jun 24. PMID: 35752172

11. Tabula Sapiens Consortium*; Jones RC, Karkanias J, Krasnow MA, Pisco AO, Quake SR, Salzman J,

Yosef N, Bulthaup B, Brown P, Harper W, Hemenez M, Ponnusamy R, Salehi A, Sanagavarapu BA, Spallino E, Aaron KA, Concepcion W, Gardner JM, Kelly B, Neidlinger N, Wang Z, Crasta S, Kolluru S, **Morri M**, Tan SY, Travaglini KJ, Xu C, Alcántara-Hernández M, Almanzar N, Antony J, Beyersdorf B, Burhan D, Calcuttawala K, Carter MM, Chan CKF, Chang CA, Chang S, Colville A, Culver RN, Cvijović I, D'Amato G, Ezran C, Galdos FX, Gillich A, Goodyer WR, Hang Y, Hayashi A, Houshdaran S, Huang X, Irwin JC, Jang S, Juanico JV, Kershner AM, Kim S, Kiss B, Kong W, Kumar ME, Kuo AH, Li B, Loeb GB, Lu WJ, Mantri S, Markovic M, McAlpine PL, de Morree A, Mrouj K, Mukherjee S, Muser T, Neuhöfer P, Nguyen TD, Perez K, Puluca N, Qi Z, Rao P, Raquer-McKay H, Schaum N, Scott B, Seddighzadeh B, Segal J, Sen S, Sikandar S, Spencer SP, Steffes LC, Subramaniam VR, Swarup A, Swift M, Van Treuren W, Trimm E, Veizades S, Vijayakumar S, Vo KC, Vorperian SK, Wang W, Weinstein HNW, Winkler J, Wu TTH, Xie J, Yung AR, Zhang Y, Detweiler AM, Mekonen H, Neff NF, Sit RV, Tan M, Yan J, Bean GR, Charu V, Forgó E, Martin BA, Oz… The Tabula Sapiens: A multipleorgan, single-cell transcriptomic atlas of humans. Science. 2022 May 13;376(6594). doi: 10.1126/science.abl4896. Epub 2022 May 13. PMID: 35549404

12. Zhao J, Wang G, Ming J, Lin Z, Wang Y; Tabula Microcebus Consortium; Wu AR, Yang C. Adversarial domain translation networks for integrating large-scale atlas-level single-cell datasets. Nat Comput Sci. 2022 May;2(5):317-330. doi: 10.1038/s43588-022-00251-y. Epub 2022 May 30. PMID: 38177826

13. Vorperian SK, Moufarrej MN; Tabula Sapiens Consortium; Quake SR. Publisher Correction: Cell types of origin of the cell-free transcriptome. Nat Biotechnol. 2022 Jun;40(6):974. doi: 10.1038/s41587-02201293-3. PMID: 35347330

14. Vorperian SK, Moufarrej MN; Tabula Sapiens Consortium; Quake SR. Cell types of origin of the cellfree transcriptome. Nat Biotechnol. 2022 Jun;40(6):855-861. doi: 10.1038/s41587-021-01188-9. Epub 2022 Feb 7. PMID: 35132263

15. Appel MJ, Longwell SA, **Morri M**, Neff N, Herschlag D, Fordyce PM. uPIC-M: Efficient and Scalable Preparation of Clonal Single Mutant Libraries for High-Throughput Protein Biochemistry. ACS Omega. 2021 Nov 2;6(45):30542-30554. doi: 10.1021/acsomega.1c04180. eCollection 2021 Nov 16. PMID: 34805683

16. Olivieri JE, Dehghannasiri R, Wang PL, Jang S, de Morree A, Tan SY, Ming J, Ruohao Wu A; Tabula Sapiens Consortium; Quake SR, Krasnow MA, Salzman J. RNA splicing programs define tissue compartments and cell types at single-cell resolution. Elife. 2021 Sep 13;10. doi: 10.7554/eLife.70692. PMID: 34515025

17. Ambrosi TH, Marecic O, McArdle A, Sinha R, Gulati GS, Tong X, Wang Y, Steininger HM, Hoover MY, Koepke LS, Murphy MP, Sokol J, Seo EY, Tevlin R, Lopez M, Brewer RE, Mascharak S, Lu L, Ajanaku O, Conley SD, Seita J, **Morri M**, Neff NF, Sahoo D, Yang F, Weissman IL, Longaker MT, Chan CKF. Aged skeletal stem cells generate an inflammatory degenerative niche. Nature. 2021 Sep;597(7875):256-262. doi: 10.1038/s41586-021-03795-7. Epub 2021 Aug 11. PMID: 34381212

18. Ambrosi TH, Sinha R, Steininger HM, Hoover MY, Murphy MP, Koepke LS, Wang Y, Lu WJ, **Morri M**, Neff NF, Weissman IL, Longaker MT, Chan CK. Distinct skeletal stem cell types orchestrate long bone skeletogenesis. Elife. 2021 Jul 19;10. doi: 10.7554/eLife.66063. PMID: 34280086

19. Čapek D, Smutny M, Tichy AM, **Morri M**, Janovjak H, Heisenberg CP. Light-activated Frizzled7 reveals a permissive role of non-canonical wnt signaling in mesendoderm cell migration. Elife. 2019 Jan 16;8. doi: 10.7554/eLife.42093. PMID: 30648973

20. **Morri M**, Sanchez-Romero I, Tichy AM, Kainrath S, Gerrard EJ, Hirschfeld PP, Schwarz J, Janovjak H. Optical functionalization of human Class A orphan G-protein-coupled receptors. Nat Commun. 2018 May 16;9(1):1950. doi: 10.1038/s41467-018-04342-1. PMID: 29769519