Diogo M. Camacho

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Executive Profile

Transformational biotech executive with 15+ years building and leading computational biology and AI/ML functions across pharma, venture-backed startups, and translational research institutes. Proven track record in designing and operationalizing computational platforms that unlocked precision medicine insights, advanced multiple therapeutic programs, and shaped corporate strategy. Board-facing leader, experienced in guiding venture investors, alliances, and cross-functional R&D organizations through high-stakes decision points.

Core Leadership Strengths

- Enterprise Strategy & Capital Allocation Impact: Built data/AI organizations that drove portfolio differentiation and created option value in novel drug discovery platforms.
- Talent Builder: Scaled teams from first hire to high-performing cross-disciplinary groups; deep commitment to mentorship, succession, and leadership pipeline.
- Operational Excellence: Implemented operating cadences, decision logs, and platform governance across startups and institute settings.
- External Influence: Board/VC interface; secured DARPA and NIH grants; published >20 peer-reviewed papers and filed multiple patents.

Professional Experience

Flagship Pioneering *Sudbury, MA*
Senior Principal, Computation *October 2024 - Present*

- Interim executive leadership: Served as acting head of Computational Sciences seed and early stage ventures, building strategies for hiring, contractor management, and external partnerships.
- Platform strategy and execution: Shaped computational and data strategies for seed stage companies; directly developed platform capabilities while guiding overall bio-platform strategy.
- Portfolio innovation: Served as origination leader for new AI-first ventures in partnership with Pioneering Intelligence.
- Mentorship and talent building: Provided senior mentorship to computational biologists across portfolio; partnered in identification and hiring of computational heads of function for portfolio companies.

42 Bio LLC *Sudbury, MA*
Founder & Principal *March 2024 - Present* Independent consultancy advising biotech/pharma on computational systems biology and ML strategy, platform development, and data governance.

Cellarity *Boston, MA*
Vice President, Computational and Data Sciences *July 2022 - February 2024*

- Member of R&D Leadership Team, reporting to the CSO
- Led 25-person computational org across bioinformatics, ML, and computational biology.
- Directed platform strategy and operations, enabling integration of Cellarity's computational capabilities into R&D programs and investor narratives.
- Interfacing with external partners, board members, and founding VC partners on platform strategy

Rheos Medicines *Boston, MA*
Senior Director, Computational Biology and Bioinformatics *November 2020 - July 2022*

- Established computational precision medicine strategy.
- Defined and implemented Rheos' data strategy in partnership with Research Informatics, ensuring integration across discovery and translational programs.
- Delivered proprietary patient stratification algorithms and multi-omics platform.
- Managed CRO alliances to build company Knowledge Graph.
- Presented strategy to board and pharma partners.

Wyss Institute @ Harvard University *Boston, MA*
Lead, Predictive BioAnalytics Initiative, Advanced Technology Team *July 2016 - November 2020*

- Founded and led the Predictive BioAnalytics Initiative, defining and implementing research strategy to embed ML/AI capabilities in translational science.
- Raised multi-million-dollar grants with DARPA and NIH, securing external validation and resources.
- Directed and mentored interdisciplinary teams of staff scientists, postdocs, graduate students, and interns, building a high-performing computational biology group.
- Led the development and implementation of novel AI/ML tools for synthetic and systems biology.

Earlier Roles

- Evelo Biosciences: First computational hire; built data infrastructure.
- Ember Therapeutics: Designed multi-omics pipelines for screening libraries.
- Pfizer: Developed metabolite enrichment & network tools across preclinical portfolio.
- HHMI Postdoctoral Fellow with Jim Collins (synthetic biology & ML pioneer).

Technical Fluency

AI | Machine learning | Deep learning | Multi-omics data analyses | R/Bioconductor | Python | AWS | Git

Education

Virginia Polytechnic Institute and State University *Blacksburg, VA*
Ph.D. in Genetics, Bioinformatics, and Computational Biology

Faculdade de Ciencias da Universidade de Lisboa *Lisboa, Portugal*
B. Sc. in Biochemistry

Board-Relevant Achievements

- **Selected Publications**
  - Valeri, JA, Soenksen, LR, Collins, KM, Ramesh, P, Cai, G, Powers, R, Angenent–Mari, NA, **Camacho, DM**, Wong, F, Lu, TK, Collins, JJ (2023), BioAutoMATED: An end-to-end automated machine learning tool for explanation and design of biological sequences, *Cell Systems*, 14, 525 [PubMed]
  - Bojar, D, Powers, RK, **Camacho, DM**, Collins, JJ (2020), Deep-Learning Resources for Studying Glycan-Mediated Host-Microbe Interactions, *Cell Host & Microbe*, 29, 132-144 [PubMed]
  - Valeri, J, Collins, KM, Ramesh, P, Alcantar, M, Lepe, BA, Lu, TK, **Camacho, DM** (2020), Sequence-to-function deep learning frameworks for engineered riboregulators, *Nature Communications*, 11, 5058 [PubMed]
  - **Camacho, DM**, Collins, KM, Powers, RK, Costello, JC, Collins, JJ (2018), Next-generation machine learning for biological networks, *Cell*, 173, 1581-1592 [PubMed]
  - (Full list available on Google Scholar)
- **Patents (6 filed)**: Methods for detecting cellular transitions; disease detection systems; compound prediction via transcriptional signatures; contrastive computational systems; microbiome therapeutics; riboregulators for engineered biology.
- **Grants & Capital**: Raised >$2.4M in competitive federal funding (DARPA, NIH) to support translational bioanalytics platforms.