

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

Senior Principal, Computation

Cambridge, MA

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

Founder & Principal

Sudbury, MA

March 2024 - Present

- **Strategic advisor:** Independent consultancy advising biotech/pharma on computational systems biology and ML strategy, platform development, and data governance.

Cellarity

Vice President, Computational and Data Sciences

Boston, MA

July 2022 - February 2024

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

Rheos Medicines

Senior Director, Computational Biology and Bioinformatics

Boston, MA

November 2020 - July 2022

- **Strategic leadership:** Established computational precision medicine strategy.
- **Data strategy:** Defined and implemented Rheos' data strategy in partnership with Research Informatics, ensuring integration across discovery and translational programs.
- **Innovation:** Delivered proprietary patient stratification algorithms and multi-omics platform.

- **Partnership management:** Managed CRO alliances to build company Knowledge Graph.
- **Board engagement:** Presented strategy to board and pharma partners.

Wyss Institute @ Harvard University

Boston, MA

Lead, Predictive BioAnalytics Initiative, Advanced Technology Team

July 2016 - November 2020

- **Founding leadership:** Founded and led the Predictive BioAnalytics Initiative, defining and implementing research strategy to embed ML/AI capabilities in translational science.
- **Capital acquisition:** Raised multi-million-dollar grants with DARPA and NIH, securing external validation and resources.
- **Team leadership:** Directed and mentored interdisciplinary teams of staff scientists, postdocs, graduate students, and interns, building a high-performing computational biology group.
- **Innovation:** 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.