

Summary

Trusted and innovative leader with strong scientific background comprising 30+ years of hands-on experience and 20 years in biotech management. Skilled at learning new concepts quickly, working well under pressure, building efficiency in a complex environment, deriving optimal results from a team to meet deadlines, and communicating ideas clearly and effectively.

Professional and Technical Skills

Biology

- Standard and advanced molecular biology techniques and technology
- I&I, ocular, hepatic, arthritis, pulmonary, renal, CV, neuro disease areas
- Protein evolution / directed mutagenesis
- Metabolic engineering
- Immunotherapy for oncology / lymphoma
- Yeast, *Drosophila* and algae genetics / screening / physiology

Team Leadership

- R&D strategy and organization design
- Leadership of up to 15 scientists, engineers and technicians
- Team member development
- Cross functional influence across departments

Bioinformatics / IT

- Working knowledge of NGS based technologies [e.g. (sc)RNAseq, de novo genome sequencing, SNP analysis], proteomics, metabolomics, analyses of large datasets and automation
- Large scale data generation/management
- Computational infrastructure
- High throughput sequencing analysis
- LIMS, EBR, ELN implementation
- Bioinformatics certificate (UCSD)
- UNIX systems admin certificate (UCSD)

Pre/Clinical

- Preclinical exploratory disease programs
- Phase I / II / III clinical trials
- GLP/GMP
- Author of IND reports, SOPs, MBRs, EOPs, IQ/OQ/PQs
- Software validation and 21 CFR Part 11

Collaborations

- Leader and research committee member for academic and industrial relationships
- Research licenses, sponsored research agreements, industrial collaborations

Project Management

- Project and technical lead in matrix org
- Grant applications and management
- After action reviews and process improvement

Career History and Accomplishments

CompBio Bridge, San Francisco, CA

2025 – present

Fractional Strategy and Management

Principal

TRex Bio, Inc., South SF, CA

2021 – 2024

Restoring tissue homeostasis through immune system modulation

Executive Director, Head of Computational Biology

- Build and lead team of computational biologists, data scientists, machine learning engineers and software developers.
- Coordinate informatics and cross functional collaborations in therapeutic programs for indication selection and translational and biomarker projects.
- Lead creation of ML-based discovery engine and computational pipelines for target ID and validation.
- Provide strategy and oversight for all informatics and AI/ML efforts.
- Contribute to company strategy and BD as member of R&D leadership.

UNITY Biotechnology, Inc. (NASDAQ:UBX), South SF, CA

2015 – 2021

Discovery and development of therapeutics for age-related diseases

Senior Director, Discovery Technologies

(Previous positions: Director, Discovery Technologies; Director, Bioinformatics & Biomarkers; Consultant)

- Supervised early disease discovery efforts including indication selection and exploratory project teams focused on disease hypothesis and mechanism ID.
- Set and implemented bioinformatics strategy for the R&D organization.
- Drove efforts for discovery of biomarkers for multiple disease indications.
- Identified innovative applications of technology platforms throughout *in vivo* / *in vitro* pharmacology process to advance lead programs and discovery efforts.
- Created and led department of informatics, IHC & tech development functions.

Sapphire Energy, Inc., San Diego, CA

2008 – 2016

Algae biofuel development and production backed by Arch, Venrock, Wellcome

Director, Biotechnology

(Previous positions: Associate Director, Trait Discovery; Principal Scientist and Group Leader, Trait Discovery; Section Leader; Senior Scientist, Bioinformatics)

- Managed \$5MM trait discovery collaborations, reducing costs by 40% while meeting all deliverables.
- Led the gene discovery, protein evolution and classical mutagenesis efforts.
- Served as key member of R&D Leadership Team, devising strategy and setting priorities for cross-functional, multi-site organization.
- Provided bioinformatics expertise and oversaw informatics programs.

Career History and Accomplishments (continued)

Favrille, Inc. (NASDAQ:delisted), San Diego, CA

2002 – 2008

Personalized, targeted cancer vaccine immunotherapy research and development

Bioinformatics, Senior Manager

(Previous positions: Bioinformatics Manager; Bioinformatics Senior Scientist; Bioinformatics Scientist)

- Advised and directed molecular biology department on experimental design and troubleshooting for GMP production of patient specific expression vectors.
- Managed and analyzed all data from high-throughput semi-automated sequencing facility in support of R&D and personalized cancer therapy manufacture.
- Co-managed department of 15 people, including direct reports, to meet strict timelines in support of Phase II and III clinical trials.
- Played driving role in selection, implementation and software validation development for data management and automated analysis system, galvanizing a diverse team from Bioinformatics, Molecular Biology, Information Technology and Quality Assurance departments.
- Authored and executed technical and regulatory documents, including SOPs, MBRs, EOPs, development reports, IQ/OQ/PQs and validation protocols.

The Skirball Institute/HHMI, New York, NY

1996 – 2002

Post doctoral Research Associate

Principal Investigator: Ruth Lehmann, Ph.D.

- Led and coordinated 8-member team in large scale genetic screen in *Drosophila*.
- Genetically and molecularly identified and characterized genes involved in early *Drosophila* development.
- Maintained local network of 15+ computers in mixed UNIX/ Macintosh/ Windows environment, in conjunction with IT.

The Scripps Research Institute, La Jolla, CA

1991 – 1996

Doctoral Graduate Student

Principal Investigator: Stephen P. Mayfield, Ph.D.

- Characterized key component of light-mediated translation in the *Chlamydomonas* chloroplast by genetic, molecular and biochemical means.
- Assisted in preparing federally funded grant proposals.

Washington University, St. Louis, MO

1990

Research Lab Technician

Principal Investigator: Roger N. Beachy, Ph.D.

- Conducted biochemical and systemic analysis of coat-protein mediated viral resistance in plants.

Northwestern University, Evanston, IL

1988 – 1991

Research Lab Technician

Principal Investigator: Richard F. Gaber, Ph.D.

- Described regulation of K⁺ transporters in yeast.

Education

B.S. Biomedical Engineering

1991

Northwestern University, Evanston, IL

Ph.D., Macromolecular and Cellular Structure and Chemistry

1996

The Scripps Research Institute, La Jolla, CA

UNIX System Administration Certificate; Bioinformatics Certificate

2004; 2006

University of California San Diego Extension, La Jolla, CA

Management Development Program, Certificate

2014

Harvard Business School Chapter, San Diego, CA

Publications

- Savić R., J. Yang, ..., **C.B. Yohn**, E.E. Schadt, R.M. Laberge, J.L.M. Björkegren, Z. Tu, C. Argmann. (2023) Integration of transcriptomes of senescent cell models with multi-tissue patient samples reveals reduced COL6A3 as an inducer of senescence. *Cell Rep.*, 42(11):113371.
- Crespo-Garcia S., P.R. Tsuruda, ... **C.B. Yohn**, J.S. Joyal, D. Marquess, P.J. Beltran, P. Sapieha. (2021) Pathological angiogenesis in retinopathy engages cellular senescence and is amenable to therapeutic elimination via BCL-xL inhibition. *Cell Metab.*, 33(4):818-832.e7.
- Chou, C. H., V. Jain, ... **C.B. Yohn**, R. M. Laberge, S. Gregory, & V. B. Kraus (2020). Synovial cell cross-talk with cartilage plays a major role in the pathogenesis of osteoarthritis. *Scientific Reports*, 10(1), 10868.
- Corcoran, A.A., M.A. Saunders, ... **C.B. Yohn**. (2018) Iterative screening of an evolutionary engineered *Desmodesmus* generates robust field strains with pesticide tolerance. *Algal Research*, 31: 443-453.
- Szyjka, S.J., S. Mandal, ... **C.B. Yohn**, ... S.P. Mayfield. (2017) Evaluation of phenotype stability and ecological risk of a genetically engineered alga in open pond production. *Algal Research*, 24:378-386.
- Garcia de Lomana, A.L., S. Schäuble, J. Valenzuela, S. Imam, W. Carter, D.D. Bilgin, **C.B. Yohn**, S. Turkarslan, D.J. Reiss, M.V. Orellana, N.D. Price and N.S. Baliga. (2015) Transcriptional program for nitrogen starvation-induced lipid accumulation in *Chlamydomonas reinhardtii*. *Biotechnology for Biofuels*, 8, 207.
- O'Neill, B.M., K.L. Mikkelsen, N.M. Gutierrez, J.L. Cunningham, K.L. Wolff, S.J. Szyjka, **C.B. Yohn**, K.E. Redding and M. Mendez (2011). An exogenous chloroplast genome for complex sequence manipulation in algae. *Nucleic Acids Research*. 40(6), 2782–2792.
- **Yohn, C.B.** L. Pusateri, V. Barbosa and R. Lehmann (2003) *l(3)malignant brain tumor* and three novel genes are required for *Drosophila* germ cell formation. *Genetics*. 165:1889-1900.
- Cohen, A., **C.B. Yohn** and S.P. Mayfield (2001) Translation of the chloroplast-encoded *psbD* mRNA is arrested post-initiation in a nuclear mutant of *Chlamydomonas reinhardtii*. *J. Plant Physiol.* 158:1069-75.
- **Yohn, C.B.**, A. Cohen, C. Rosch, M.R. Kuchka and S.P. Mayfield. (1998) Translation of the chloroplast *psbA* mRNA requires the nuclear encoded poly(A) binding protein, RB47. *J. Cell Biol.* 142:435-442.
- **Yohn, C.B.**, A. Cohen, A. Danon and S.P. Mayfield. (1998) A poly(A) binding protein functions in the chloroplast as a message-specific translation factor. *Proc. Nat'l Acad. Sci USA*. 95:2238-43.
- Cohen, A., **C.B. Yohn**, R.K. Bruick and S.P. Mayfield. (1998) Translational regulation of chloroplast gene expression in *Chlamydomonas reinhardtii*. *Meth. Enzymol.* 297:192-208.
- **Yohn, C.B.**, A. Cohen, A. Danon and S.P. Mayfield. (1995) Altered mRNA binding activity and decreased translation initiation in a nuclear mutant lacking translation of the chloroplast *psbA* mRNA. *Mol.Cell. Biol.* 16:3560-6.
- Mayfield, S.P., **C.B. Yohn**, A. Cohen, and A. Danon. (1995) Regulation of Chloroplast Gene Expression. *Annu. Rev. Plant Physiol. Plant Mol. Biol.*, 46, 147-166.
- Vidal, M., A.M. Buckley, **C. Yohn**, D.J. Hoepfner and R.F. Gaber. (1995) Identification of essential nucleotides in an upstream repressing sequence of *Saccharomyces cerevisiae* by selection for increased expression of TRK2. *Proc. Nat'l. Acad. Sci. USA*, 92, 2370-2374.
- Mayfield, S.P., A. Cohen, A. Danon, and **C.B. Yohn**. (1994) Translation of the *psbA* mRNA of *Chlamydomonas reinhardtii* requires a structured RNA element contained within the 5' untranslated region. *J.Cell Biol.*, 127, 1537-1545.
- Rayment, I., H.M. Holden, M. Whittaker, **C.B. Yohn**, M. Lorenz, K.C. Holmes and R.A. Milligan. (1993) Structure of the Actin-Myosin Complex and its Implications for Muscle Contraction. *Science*, 261, 58-65.
- Danon, A., **C.B. Yohn** and S.P. Mayfield. (1993) Regulation of Translation in Plants. In *Genetic Engineering: Principles and Methods* Vol. 15, ed. J. K. Setlow. Plenum Press, New York, NY. pp. 41-55.