Richard D. Purcell Curriculum Vitae

richard.purcell@dnahealthlink.com 732-492-1797

EDUCATION

Princeton University

Bachelor of Arts in Biochemical Sciences, 1983

Thesis: Characterization of Nerve Growth Factor Receptor

Goalkeeper, Varsity Soccer (1978 - 1981)

Goalkeeper Coach, Women's Varsity Soccer (1982, NCAA Final 8, All-American Keeper)

Rutgers Graduate School of Management

MBA Program: Marketing & Finance

Professional Experience

DNA Healthlink, Inc.

President (2005 - Present)

I am the founder and President of DNA Healthlink, a strategic consulting practice that provides executive leadership, business development, and commercialization services to the biopharmaceutical and healthcare IT industries. I help companies build businesses in the challenging fields of life sciences and healthcare. A strategic leader with experience and vision to bring new technologies to the market, I bridge the domains of drug development, health information technology, finance, marketing, sales, and business operations to build innovative technology & life science companies. (www.dnahealthlink.com).

- Executive management with P&L responsibilities
- Business development & licensing
- Biopharmaceutical development
- Clinical operations & management
- Regulatory filings & approvals
- Technology search and evaluation
- Mergers & acquisitions

Since 2005, DNA Healthlink has provided business development and management services to emerging biotechnology companies, hospitals, software and IT groups, and medical communications firms to grow sales and advance corporate objectives.

Data Driven Health

Consultant, Business Development & Corporate Alliances (2023 – Current)

Data Driven Health is an AI technology company that specializes in disease surveillance and population health. Through a collaboration with Northwell Health, the largest integrated delivery network (IDN) in New York state, they have a platform called Population Advisor that performs ETL functions to enable machine learning, advanced analytics, and AI-driven decision support. Working with life science companies and healthcare providers DDH designs, develops, and implements data solutions and services to optimize clinical and economic outcomes across the healthcare and life science landscape.

RespireRx Pharmaceuticals

Senior Vice President Research & Development (2014 –2021)

Consultant (2021 – current)

RespireRx is developing novel drugs for the treatment of respiratory and neurologic disorders, including opiate-induced respiratory depression, spinal cord injury, and epilepsy.

Through DNA Healthlink, I led the clinical development and strategic partnering efforts for the company's ampakine programs and opened the company's first IND. (www.respirerx.com)

NuGenerex Immuno-Oncology & Generex Biotechnology Executive Vice President, Research & Development (2017 – 2022) Chief Operating Officer (2012 – 2014)

Through DNA Healthlink, I provided strategic consulting and executive management services to the companies, successfully completing M&A transactions and building a vaccine pipeline in oncology and infectious disease. In response to the SARS-CoV-2 pandemic, my team designed, patented, and developed a novel COVID-19 vaccine based on the Ii-Key vaccine technology, completing fill/finish for clinical trial supply in 18 months.

intelliSanté Corporation

President, Founder, Director (2011 - 2017)

At intelliSanté, we designed, programmed, and implemented our HIPAA compliant, cloud-based health data platform C3HealthLink to integrate primary care and mental health services, with emphasis on patient activation & communication, collaborative care and patient self-management, and data analytics for outcomes research. Through DNA Healthlink, I led all business development activities for the company.

Hackensack Meridian Health

Consultant (2012 - 2016)

I consulted on a wide range of projects for Hackensack Meridian Health, one of the largest healthcare systems in New Jersey. Some projects include evaluation and reorganization of clinical research operations, developed department level strategic plans for clinical research, and wrote the Oncology Research Plan for Hackensack Meridian Cancer Center.

CLINPRO, INC.

President (2000-2005)

ClinPro was a full-service CRO formed through the merger of three specialty practices in data management, statistics, and clinical operations. In my role as President, I was responsible for business development, strategic planning, sales, and business and IT operations.

- Signed five strategic alliance partnerships to extend the company's reach in the marketplace and geographically.
- Signed several business development partnerships with pharmaceutical, biotech, and medical device companies on drug/device clinical programs.
- Opened European and Japanese offices.
- Spearheaded strategic technology improvement initiatives to reposition the company as a technology solutions provider in clinical development. Resulted in a 5-year partnership agreement with a medical device company involving 7 studies.

SCP COMMUNICATIONS, INC., New York, NY

Corporate Vice President/General Manager, SCP Clinical Programs (1993 – 2000)

SCP was a small but widely respected publishing company that we grew to a \$75 million business through the development of medical education and clinical research services to become the premier launch company in the pharmaceutical industry. As GM, I was responsible for business development, strategic planning, sales, and business and IT operations.

• Signed five strategic alliance partnerships to extend the company's reach in the marketplace and geographically.

- Signed several business development partnerships with pharmaceutical, biotech, and medical device companies on drug/device clinical programs.
- Spearheaded strategic technology improvement initiatives to reposition the company as a technology solutions provider in clinical development. Resulted in a 5-year partnership agreement with a medical device company involving 7 studies.
- Participated in the start-up of the #1 medical web site, Medscape through sales and business development activities.
- Developed, implemented, and managed clinical launch programs for such blockbusters as Lipitor (Pfizer), Avandia (GSK), Accolate (AstraZeneca), Tequin (BMS), and Biaxin and Meridia (Abbott).

In Vivo, Princeton, NJ

Director, Business Development

In Vivo was a specialty CRO focused on Phase IV medical marketing programs. As Director of BD, my primary responsibilities focused on client relations, new business development, and management of all marketing activities.

- Developed and implemented sales & marketing plan.
- Designed Phase IV clinical research programs in the areas of CNS, oncology, and antiinfectives.
- Managed all advertising and promotional activity for the company.
- Managed a staff of national account representatives.

Kline Group, Fairfield, NJ

Business Development Manager, International Life Science Consulting Practice

I established the life science and biotechnology practice for Kline & Company, where we conducted customized, proprietary consulting projects focused on translating market needs to actionable business plans.

- Developed international strategic plans and competitive intelligence projects for pharmaceutical, biotechnology, and agro-chemical companies.
- Utilized technology assessment, market analysis, process improvement, benchmarking, strategic planning, acquisitions, and joint venture and licensing partnerships.
- Convened a ground-breaking conference "The Future of Agriculture", bringing together agrochemical, seed, industry leaders

Roche, Nutley, NJ

Research Scientist, Protein Structure/Function Laboratory

- Responsible for analytical biochemistry, protein purification, and basic research directed towards novel drug discovery.
- As a member of the Roche AIDS Research Task Force, purified and characterized the HIV-1 regulatory proteins *rev* and *tat*. Publications:

Purification and Characterization of Recombinant rev Protein of HIV-1 Proceedings of the National Academy of Science. Vol. 87, October, 1990 Structural and Functional Characterization of HIV-1 tat Protein Journal of Virology. January, 1989, pp 1–8.

Integrated Genetics (Now Genzyme), Framingham, MA Scientist, Protein Engineering Department

- Established the Protein Engineering Department
- Developed and patented a second generation TPA with increased half life
- As a result of the patent, Genzyme receives royalties from Genentech on sales of TNKase®, which infringed on the Genzyme patent
- Biochemical and In-vivo Analysis of De-glycosylated and Semi-glycosylated Tissue Plasminogen Activators

Other Experience

College Achieve Public Schools

Board of Directors (2016 -2022), Director of Strategic Initiatives (2022 - current)

College Achieve Public Schools (CAPS), a nonprofit Charter Management Organization that operates a network of public charter schools serving 3,600 K – 12 students in Paterson, Plainfield, and Asbury Park, NJ. My work focuses on strategic planning and financing for Science, Technology, Engineering, Arts, and Math (STEAM) educational initiatives. I am past-Chairman and member of the CAPS Board of Trustees since 2016.

Monmouth University

Adjunct Professor, School of Science (2011 - 2019)

I built and taught a course in the Biology Department: *The Business of Biotechnology from the Bench to the Market (BY360)*.

Patents

COVID-19 Vaccine: Multi-Targeting, Multi-Functional Selective Immune-Regulatory Ii-Key Peptide Vaccines for Prophylaxis and Long-Term Protection Against SARS-CoV-2 Infection and COVID-19 Disease Without Antibody Dependent Enhancement (ADE), and Related Compositions and Methods for the Design, Construction, Formulation and Use of Anti-SARS-CoV-2 Ii-Key Hybrid Peptide Vaccines U.S. Patent application 63/130,822. 27 December 2020.

Compositions and Methods for Treating Spinal Cord Injuries. Lippa, A., Purcell, R., USPTO Patent application #63033818. June 2020.

Concepts for Promoting Health & Wellness and Engagement Therein. U.S. Patent Application #62003619, Filed May 2014.

Semi-glycosylated Variants of TPA With Increased Half-life

US #5,344,773 European #85306957.3, Japan #1-214-13

Concepts for Promoting Health & Wellness and Engagement Therein. US Patent Application #62003619, Filed May 2014.

Publications

Brain Vacuolation Resulting from Administration of the Type II Ampakine CX717 is an Artifact Related to Molecular Structure and Chemical Reaction with Tissue Fixative Agents. Richard Purcell, Gary Lynch,

Christine Gall, Steven Johnson, Zhong Sheng, James Cook, Michael Rajesh Stephen, Robert H. Garman, Bernard Jortner, Brad Bolon, and Arnold Lippa. Toxicol Sci. 2017 Dec 15.

Oncolytic Properties of Ampakines In Vitro. Daniel Radin, Richard Purcell, Arnold Lippa. Anticancer Research. 2018 Jan;38(1):265-269.

Tarps Differentially Affect the Pharmacology of Ampakines. Daniel P Radin, Yong-Xin Li, Gary Rogers, Richard Purcell, Arnold Lippa. Biochem Pharmacol. 2018 Aug;154:446.

Stargazin Differentially Modulates Ampakine Gating Kinetics and Pharmacology. Daniel P Radin, Yong-Xin Li, Gary Rogers, Richard Purcell, Arnold Lippa, Biochem Pharmacol. 2018 Feb; 148:308-314.

Ampakines Attenuate Staurosporine-induced Cell Death in Primary Cortical Neurons: Implications in the 'Chemo-Brain' Phenomenon. Daniel P Radin, Gary Rogers, Kimberley E Hewitt, Richard Purcell, Arnold Lippa. Anticancer Res. 2018 Jun;38(6):3461-3465.

Effects of Chronic Systemic Low-Impact Ampakine Treatment on Neurotrophin Expression in Rat Brain. Daniel Radin, Steven Johnson, Richard Purcell, Arnold Lippa. Pharmacother. 2018 Sep;105:540-544.

Acute Ampakine Treatment Ameliorates Age-Related Deficits in Long-Term Potentiation. Daniel Radin, Sheng Zhong, Richard Purcell, Arnold Lippa. Biomed Pharmacother. 2016 Dec;84:806-809.

Antagonism of Remifentanil-Induced Respiratory Depression by CX1739 in Two Clinical Models of Opioid Induced Respiratory Depression (OIRD). Andrew Krystal, MD, John Greer, PhD, Dariusz Nasiek, MD, Eva Krusinska, PhD, Arnold Lippa, PhD, Richard Purcell. Poster presented at Sleep 2017 the Annual Meeting of the American Academy of Sleep Medicine.

Purification and Characterization of Recombinant rev Protein of HIV-1. Carlo M. Nalin, Richard D. Purcell, Douglas Antelman, Dale Mueller, Lorraine Tomchak, Bogda Wegrzynski, Eileen McCarney, Voldemar Toome, Richard Kramer, and Ming-Chu Hsu. *Proceedings of the National Academy of Science. Vol. 87, October, 1990*

Structural and Functional Characterization of HIV-1 tat Protein. Steven Ruben, Ann Perkins, Richard Purcell, Keith Joung, Rey Sia, Robert Burghoff, William A. Haseltine, AND CRAIG A. ROSEN. *Journal of Virology. January*, 1989, pp 1–8

Biochemical and In-vivo Analysis of De-glycosylated and Semi-glycosylated Tissue Plasminogen Activators. Journal of Cellular Biochemistry. Supplement 12B, 297, 1988

Winning the Healthcare Revolution with Technology for Care Coordination, Collaboration & Communication. Published on Healthcare Intelligence Network. September 8, 2015

Freedom to Feel Good - Patient Self-Management Through Collaborative Health Technology: intellisanté software systems for patient self-management and collaborative care.

Presentation to the Annual Meeting of the NJ Health Information Management Systems Society. October 2016. The results demonstrated clinically significant weight loss, enhanced medication compliance, improvements in cardiovascular (blood pressure) and metabolic (glucose) measures, and overall patient satisfaction with care.