MICHAEL KOUCHAKDJIAN, Ph.D.

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EXPERIENCE:

Professor of Business & Management

August, 2017 – present March, 2018 - present

Director, Entrepreneurship and Product Innovation Center

College of Business and Economics, American University of Armenia (affiliate of University of California), Oakland, CA and Yerevan, Armenia.

Managing Director

January, 2017 – present

Lexcell Capital, LLC., Lexington, MA.

Consulting, Advising, Investing.

President and Founder

Blue Stream Laboratories, Inc. Woburn, MA.

2006-2017

Acquired by Charles River Laboratories, Inc. (NYSE:CRL) in June, 2016

Blue Stream Laboratories is an advanced analytical laboratory specializing in complex biologics characterization services. The company supports pre-IND through cGMP clinical-phase product development programs for product characterization, cGMP lot release, and GMP stability programs. Blue Stream's worldwide clients range from small start-ups and virtual biotechs to Fortune 500 biotech and pharmaceutical companies.

Director, Business Development

2000-2005

Antigenics, Inc. now Agenus, Inc. (Nasdaq:AGEN), Lexington, MA and New York, NY.

Corporate Development

Product Transaction

- Led \$14.25 million sale of manufacturing rights for FeLV vaccine to French multinational.
- Structured, negotiated, and closed complex series of transactions (including asset purchase, multiple license, supply, and property lease agreements) for a price significantly above senior management expectations and estimated asset value.
- As leader of transaction, recognized by CEO with 2004 Antigenics Award for Exceptional Performance.

Mergers and Acquisitions

- Coordinated acquisition team for \$45 million purchase of Aquila Biopharmaceuticals, Inc. Directed due diligence review and integration planning for merging Aquila into Antigenics.
- Participated in \$31 million acquisition of Aronex Pharmaceuticals, Inc.

Business Development

Partnering with Large Pharma

- Planned and implemented worldwide out-licensing initiative for late-stage therapeutic cancer vaccine (Oncophage).
- Developed partnering materials and presentations, financial models, and draft term sheets/bid guidance. Delivered presentations at conferences and meetings, coordinated due diligence reviews.
- Led out-licensing campaign in Japan that resulted in partnership with leading Japanese oncology company.

Licenses and Other Agreements

- Structured, negotiated and executed dozens of partnership agreements with pharmaceutical and biotechnology companies and academic institutions, including license, supply, material transfer, clinical trial, service, confidential disclosure, and lease agreements.
- Recognized by CEO for negotiating favorable financial terms for licenses. Materially increased revenue by renegotiating a key supply agreement.

Alliance Management

- Managed key licensee relationships with major vaccine partners GlaxoSmithKline, Wyeth, Merck, Elan, Progenics Pharmaceuticals, as well as smaller corporate collaborators and licensees.
- Facilitated all aspects of partner relationships, including technology and product issues, manufacturing and supply, financial, regulatory, and clinical development.
- Successfully settled disputes and regained control of partnerships resulting in substantial cash inflow to Antigenics.

Project Executive, AUA Center

1997-2000

AUA Corporation, Oakland, CA and Yerevan, Armenia.

Directed construction and start-up of \$7+ million international business and conference center in Yerevan, Armenia. Served as owners' representative with overall responsibility for construction and operations. Oversaw staff of 120 personnel. Responsible for construction planning and budgeting, contract administration, tendering, project and schedule control, cost control, accounting and reporting. Reported to the President of AUA Corporation.

- Took control of project after owner had difficulty with launch. Aggressive planning and start-up of construction rescued owner from forfeiting substantial project financing commitments.
- Successful completion and start-up of business resulted in substantial revenue for owner.
- Developed comprehensive Business Plan to guide Center operations. Included multi-year P/L, cash flow analysis, competitive analysis, marketing, and operation plan. Plan enabled owner to obtain additional financing.

Director of Administration

1993-1997

American University of Armenia (affiliate of University of California), Oakland, CA and Yerevan, Armenia.

Managed day-to-day operation of new, fast-growing University (founded in 1991), including faculty and staff of 150.

- Took position at a time when University was having severe challenges with personnel and operations. Brought University back to fiscal balance within one year by aggressively cutting costs and reorganizing administration.
- Designed and implemented complete restructuring of operations, including administration, accounting and financial controls, organizational structure, human resources, physical plant, and public relations.
- Hosted meetings with visiting senior U.S. Government officials, including Secretary of State Madeline Albright, Supreme Court Justice Antonin Scalia, International Monetary Fund Managing Director Michel Camdessus, Senators and Congressmen. Met with senior Armenian Government officials including President, Prime Minister, and numerous ministers and parliamentarians.
- Reported to the President of University. Awarded the AUA Medal.

Consulting 1991-1997

Triad Consulting Group, (Washington, D.C.), Dieckilman Associates, (San Diego, CA), Center for Business Research and Development, (Yerevan, Armenia).

- Managed and directed staff of up to 30 professionals undertaking dozens of management consulting engagements. Areas of specialization included business planning, marketing research, small business development, industry analysis, and management training.
- Led broad business development and marketing campaign to recruit new clients and develop project opportunities. Planned and directed organizational growth into new areas.
- Clients included The World Bank, Ernst and Young, KPMG, European Bank for Reconstruction and Development, U.S. Agency for International Development, European Union/TASIS, Deloitte Touche Tohmatsu, HSBC Bank.

UCLA Office of Intellectual Property Administration, Los Angeles, CA.

Evaluated new inventions and discoveries developed in UCLA research laboratories for potential commercialization. Determined market feasibility of new invention, proposed target companies for technology transfer, and prepared strategy for presenting invention to target companies.

ACADEMIC EXPERIENCE:

Professor of Business and Management – 2017-present Associate Professor of Business and Management – 1992-1998 College of Business and Management, American University of Armenia, Yerevan, Armenia.

Fulbright Scholars Exchange Program - member of Selection Committee – 1996-1997

Graduate Research Fellow Columbia University, New York, N.Y. - 1985-1990

EDUCATION:

- M.B.A. UCLA Anderson School of Management, Los Angeles, CA, 1992.

 General Management, Entrepreneurship, Heiko Haskamp Fellowship.
- Ph.D. College of Physicians and Surgeons, Columbia University, New York, NY, 1990.

 Biochemistry and Molecular Biophysics, Columbia University Graduate Fellowship.
- **B.S.** University of Maryland, College Park, MD, 1984. Chemistry (minor: Economics), General Honors Program, Academic Honors.

PUBLICATIONS (partial listing):

Kouchakdjian, M., Eisenberg, M., Johnson, F., Grollman, A.P., and Patel, D.J. (1991) Structural Features of an Exocyclic Adduct Positioned opposite an Abasic Site in a DNA Duplex, *Biochemistry*, <u>30</u>, 3262-3270.

De los Santos, C., **Kouchakdjian, M.**, Yarema, K., Basu, A., Essigmann, J., and Patel, D.J. (1991) NMR Studies of the Exocyclic 1,N6-Ethenodeoxyadenosine Adduct (εdA) opposite Deoxyguanosine in a DNA Duplex. εdA(syn)-dG(anti) Pairing at the Lesion Site, *Biochemistry*, 30, 1828-1835.

Kouchakdjian, M., Eisenberg, M., Yarema, K., Basu, A., Essigmann, J., and Patel, D.J. (1991) NMR Studies of the Exocyclic 1,N6-Ethenodeoxyadenosine Adduct (\varepsilon dA) opposite Thymidine in a DNA Duplex. Nonplanar Alignment of \varepsilon dA(anti) and dT(anti) at the Lesion Site, *Biochemistry*, 30, 1820-1828.

Kouchakdjian, M., Bodepudi, V., Shibutani, S., Eisenberg, M., Johnson, F., Grollman, A.P. and Patel, D.J. (1991) NMR Structural Studies of Ionizing Radiation Adducts 7-Hydro-8- oxodeoxyguanosine (8-oxo-7H-dG) opposite Deoxyadenosine in a DNA Duplex. 8-Oxo-7H-dG(syn)-dA(anti) Alignment at Lesion Site, *Biochemistry*, 30, 1403-1412.

Kouchakdjian, M., Eisenberg, M., Live, D., Marinelli, E., Grollman, A.P., and Patel D.J. (1990) NMR Studies of an Exocyclic 1,N2-Propanodeoxyguanosine Adduct (X) Located Opposite Deoxyadenosine (A) in DNA Duplexes at Basic pH: Simultaneous Partial Intercalation of X and A between Stacked Bases, *Biochemistry*, 29, 4456-4465.

Kouchakdjian, M., Marinelli, E., Gao, X., Johnson, F., Grollman, A., and Patel, D. (1989) NMR Studies of Exocyclic 1,N2-Propanodeoxyguanosine Adducts (X) opposite Purines in DNA Duplexes: Protonated X(syn)-A(anti) Pairing (Acidic pH) and X(syn)-G(anti) Pairing (Neutral pH) at the Lesion Site, *Biochemistry*, 28, 5647-5657.

Kouchakdjian, M., Li, B.F.L., Swann, P.L., and Patel, D.J. (1988) Pyrimidine-Pyrimidine Base-pair Mismatches in DNA: A Nuclear Magnetic Resonance Study of T-T Pairing at Neutral pH and C-C Pairing at Acidic pH in Dodecanucleotide Duplexes, *Journal of Molecular Biology*, 202, 139-155.

Li, B.F.L., Swann, P.F., Kalnik, M., **Kouchakdjian, M.**, and Patel, D.J. (1988) NMR Solution Studies of Covalent Carcinogenic Lesions in DNA: O6-methylguanosine, O6- ethylguanosine, and O4-methylthymidine. In NMR Spectroscopy in Drug Research, Alfred Benzon Symposium 26, 309-340.

Kalnik, M.W., **Kouchakdjian, M.**, Li, B.F.L., Swann, P.F., and Patel, D.J. (1988) Base Pair Mismatches and Carcinogen-Modified Bases in DNA: An NMR Study of G-T and G-O4meT Pairing in Dodecanucleotide Duplexes, *Biochemistry*, 27, 108-115.

Kalnik, M.W., **Kouchakdjian, M.**, Li, B.F.L., Swann, P.F., and Patel, D.J. (1988) Base Pair Mismatches and Carcinogen-Modified Bases in DNA: An NMR Study of A-C and A-O4meT Pairing in Dodecanucleotide Duplexes, *Biochemistry*, <u>27</u>, 100-108.