

Ralph W. Carmichael, Esquire

Chairman & Chief Executive Officer

BÖNWRx Ltd
924 Terminal Road
Lansing, Michigan 48906
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Chairman & Chief Executive Officer

HempFibr Ltd

Instructor

Michigan State University, East Lansing, Michigan
FI311 (Financial Management), FI473 (Debt & Money Markets)
and FI801 (Managerial Finance)

Education

J.D. New York Law School 1989

M.B.A., Professional Accounting, Michigan State University 1985

B.A., Professional Accounting, Michigan State University 1985

Post Graduate Certificate, QMS Systems and ISO 13485

Post Graduate Certificate, Microbiology, 2017

Patents - Issued - Materials and apparatus for in-situ bone repair

Nerve Regeneration Device

Method and Apparatus - Using Elastomeric Materials in Surgery

Positions and Employment

- 1982-1985 Upjohn Corporation – Consultant – Urethane Products Group
- 1983-1985 Midland-Ross Co. – Consultant – Michigan Oven Company
- 1985-1987 Bear, Stearns & Co., Inc., Associate Fixed Income
- 1986-1987 Hon. John E. Sprizzo, US District Judge, Law Clerk
- 1987-1990 Cadwalader, Wickersham & Taft, Associate Attorney
- 1990-1992 Bear, Stearns & Co., Inc., VP Financial Analytics and Structured Transactions
- 1992-1996 Consortium Capital, Managing Director, Life Sciences Venture Capital- raised \$300 million in 1992 and returned \$1.8 billion to investors by 2001.
- 1996-1998 RW Carmichael, Managing Director, Life Sciences Venture Capital
- 1998-2009 Carmichael & Company LLC, Chief Executive Officer - Holding Company which controlled - Carmichael Securities Company LLC (SEC Licensed Securities Broker/Dealer-member FINRA/SPIC) and Carmichael Strategies LLC (SEC Registered Investment Adviser). Managed over \$6 billion in assets.
- 1998-2000 Immedica Inc., Technology Acquisition and New Product Development
- 1999-2002 Fame Holding BV, Consultant – New Product Development
- 1999-2001 Stryker Corporation, Consultant – Technology Acquisition
- 2004-2013 Mayo Clinic, Research Partner Regenerative Medicine
- 2008-2015 Researcher, Armed Forces Institute of Regenerative Medicine
- 2004-2006 Research Partner, REMEDI, Regenerative Medicine Institute, Galway Ireland
- 2004-2018 BÖNWRx , Chairman & Chief Executive Officer;ISO13485:2003;GMP:USP; MDSAP
- 2014-2018 Michigan State University, Instructor
- 1999-2018 Michigan State University, Advisory Board, Department of Finance
- 2002-2018 Michigan State University, Advisory Board, Center for Venture Capital, Private Equity, & Entrepreneurial Finance

- 2016-2018 iHemp Ltd., Chairman & Chief Executive Officer

Charitable Boards

- 2012-2013 - Southwest Center for Chronic Disease – Director
- 2018 – Present – Youth Opportunity Fund – Director
- 2016-Present - Michigan Bone Health – Director

Honors and Certifications

- Instructor Excellence Award for Undergraduate Programs, Broad College of Business
- 2018's Most Outstanding Medical Device Manufacturer, Acquisition International Magazine
- 2015's Most Innovative Business Leadership, Acquisition International Magazine
- Member of the bars, New York, District of Columbia and United States Supreme Court
- Licensed by the US SEC as an Investment Adviser and Securities Broker/Dealer
- Held Series 7, 63, 24 & 27 FINRA licenses
- 1986-1988 Law Review Editor, New York Law School Law Review
- American Jurisprudence Awards in Criminal Law and Legal Method
- Member Professional Ski Instructors of America - Certified Instructor over 30 years
- Over 20 patents issued or pending
- Developer of numerous Fixed Income Securities Products/Derivatives
- Frequent Lecturer on Life Sciences Investing, Technology Development, Regulatory Affairs and Liquidity Alternatives for Private Equity
- Achieved regulatory clearance for over 20 medical products
- Founding Member, Arizona Venture Capital Conference and the Desert Angels

Publications

- Lenkowsky, S. and Carmichael, R., Destroying Retained Documents: Goal Is To Safeguard Confidentiality, National Law Journal, May 14, 1990
- Carmichael, R., Creative Company Financing: For medical device companies seeking capital, the need for creativity is serious-and the pitfalls of creativity more so, Medical Device Executive Portfolio, June/July 2000
- Carmichael, R., Mergers and Acquisitions: What every Company Should Know before Saying "I Do", MX Business Strategies for Medical Technology Executives, January/February 2001
- Yaszemski, Windebank & Carmichael, Optimizing Nerve Conduit Scaffolds for the Repair of Segmental Nerve Defects, and Cell and Bioactive Molecular Delivery to Enhance the Repair of Segmental Nerve Defects, Armed Forces Institute of Regenerative Medicine, 2009.
- Yaszemski, Windebank, & Carmichael, A Clinical Trial to Assess the Safety of a Novel Scaffold Biomaterial, Poster, AFIRM, 2009.
- Carmichael, Silicone: A Novel Alternative to PMMA for Vertebral Augmentation, National Osteoporosis Foundation, Poster 2012
- Carmichael, Silicone: A Novel Alternative to PMMA for Vertebral Augmentation, Spine Week Conference Amsterdam, Netherlands, Poster 2012

Selected Speaking Engagements

- November 2018 - American Conference Institute – Summit on IP Due Diligence – Topic: IP Valuation from a VC Perspective
- November 2017 – American Conference Institute – Summit on IP Due Diligence – Topic: Strategies to Overcome Valuation Challenges.
- July 2017 – Lorman - Using Managerial Economics to Make Sound Business Decisions.
- March 2017 – American Conference Institute - 17th Annual Conferences on Fraud and Abuse – Topic: Evaluating Potential Fraud and Abuse Risks When Working with New Technologies, Including Diagnostics, Combination Products, and LDTs.
- October 2001 - Idea Funding - 4th Annual Entrepreneur Conference Tucson, AZ - Lecturer - Topic: Idea to Company: Guide to Commercialization.
- October 2001 - Strategic Research Institute - San Francisco - Topic: Liquidity Alternatives in

- Private Equity.
- May 2002 - Strategic Research Institute - NYC - Topic: Liquidity Alternatives in Private Equity.
 - Winter 1999, 2000, 2001, 2002, 2003 - Arizona Venture Capital Conference - Conducted Educational Seminars on Venture Capital Structures, Investing and Industry Statistics.
 - March 2003- Thunderbird School of Global Management - Taught a seminar on Venture Capital.
 - February 2004 - Lehman Brothers Sports Finance Conference - Speaker - Topic: Valuation and Investing in Professional Sports Franchises.
 - June 2004 - Stanford University - Guest Lecturer - Italian American MBA Association - Topic: Venture Capital.
 - April 2005 - MBA Speakers Series - MSU - Topic - Careers in Wall Street.
 - July 2006 - Regenerative Medicine Institute - Galway, Ireland - Conference on Regenerative Medicine - Topic: Laboratory to the Patient: Paths to Commercialization of Innovative Technologies.
 - November 2008 - Armed Forces Institute for Regenerative Medicine - Quarterly AFIRM/Rutgers Consortium meeting - Topic: Regulatory Framework for Medical Devices.
 - January 2009 - Armed Forces Institute for Regenerative Medicine - Quarterly AFIRM/Rutgers Consortium meeting - Topic: Sterilization Techniques for Medical Devices.
 - March 2009 - Armed Forces Institute for Regenerative Medicine Annual Meeting Florida - Continuing Medical Education and Poster Presentation (the poster won an award for the most exciting new research) - Topic: A Clinical Trial to Assess the Safety of a Novel Scaffold Biomaterial.
 - April 2012 - National Osteoporosis Foundation Annual Meeting Florida - Continuing Medical Education Seminar - Topic: Silicone: A Novel Alternative to PMMA for Vertebral Augmentation.
 - May 2012 - Spine Week - Amsterdam, The Netherlands - Continuing Medical Education - Topic: New Developments in Percutaneous Vertebral Augmentation.
 - March 2014 - Guest Lecturer - MBA Class MSU (Prof Fluck) - Topic IPO's.
 - January 2014 - Guest Lecturer - MBA/MSU (Prof Fluck) - Wall Street/VC/Private Equity.