
CURRICULUM VITAE

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SUMMARY

Broad range of management experience in start-up and small biotechnology companies including oversight of research and development, product development, intellectual property, and contract manufacturing; drafting budgets, business plans, corporate policies and procedures; preparing for and conducting due diligence; market assessment; procuring non-dilutive financing and equity financing; and overall company operations.

CURRENT POSITION

President and Chief Executive Officer – IMBiotechnologies Ltd (November 2008 – Current)

IMBiotechnologies Ltd is an Edmonton, Alberta-based biotechnology company focused on commercializing medical device products in the area of embolotherapy.

Accountabilities:

- Jointly with the Chief Operating Officer, develop and implement operational strategy for the Company
- Jointly with the Chief Operating Officer, develop action plans with budgets and timelines to achieve objectives
- Jointly with the Chief Operating Officer, seek out and evaluate out-licensing opportunities for the Company's products
- Raise capital to support corporate plans and objectives
- Oversee clinical and regulatory activities

PREVIOUS WORK EXPERIENCE

Chief Operating Officer – Exciton Technologies Inc (October 2008 – January 2009)

Reporting directly to the Executive Chair and the Chief Executive Officer

Exciton Technologies Inc is an Alberta advanced materials research and development company, focused on the creation of technologies for preventing and controlling infection.

Accountabilities:

- Formulate and recommend operational strategy to Executive Chair, CEO and Board of Directors
- Submit action plans with budgets and timelines to achieve objectives
- Oversee regulatory activities
- Draft Employment Manual inclusive of HR Policies and Procedures
- Develop Company budget

- Draft Company business plan

Significant Achievements:

- Filed premarket notification 510(k) on time and within budget
- Developed Company Employment Manual
- Developed Company policies and procedures

Vice President, Operations – Valens Pharma Ltd (formerly CardioMetabolics Inc; September 2007 – September 2008)

Reporting directly to the President & Chief Executive Officer

Valens Pharma Ltd is a biopharmaceutical company focused on the development and commercialization of therapeutic products in the area of cardiac energy metabolism.

Accountabilities:

- Formulate and recommend operational strategy to CEO and Board of Directors. Submit action plans with budgets and timelines to achieve objectives. Communicate progress to CEO / Board
- Oversee Contract Manufacturing of Product Candidates
- Oversee Intellectual Property Management
- Liaise with Regulatory Affairs to effect timely filing of regulatory documents
- Oversee Research and Development
- Oversee implementation of HR Policies and Procedures
- Develop Company budgets with CEO and CFO
- Communications / Investor Presentations – formulate and participate in Investor Presentations / develop presentations and communications material
- Instrumental in ensuring Valens is an organization delivering products to improve health world-wide, meeting the highest ethical standards, providing a positive return to investors, and is considered by employees as an excellent place to work

Significant Achievements:

- Developed Company Employment Manual
- Developed Corporate Policies and Procedures
- Reorganized and streamlined IP portfolio
- Oversaw simplification of manufacturing process for Drug Substance

Senior Vice President, Operations – ViRexx Medical Corp (January 2006 – July 2007)

Reporting directly to the President & Chief Operating Officer

ViRexx Medical Corp is a biotechnology company focused on developing therapeutic products for the treatment of solid tumors and infectious diseases. ViRexx is a publicly-traded company.

Accountabilities:

- Oversee day-to-day operations of the Company
- Oversee Information Technology (IT)
- Participate in presentations for Capital Raises
- Oversee operation of the Division of Oncology
- Develop and oversee budgets for the Division of Oncology
- Oversee Product Development of the Division of Oncology
- Oversee Research and Development of the Division of Oncology
- Coordinate and oversee intellectual property management in the Division of Oncology
- Identify licensing/partnering opportunities for the Division of Oncology
- Liaise with Clinical and Regulatory Affairs
- Liaise with Finance and Administration

Significant Achievements:

- Conducted pre-IDE meeting with FDA
- Conducted pre-ITA meeting with Health Canada
- Issuance of patents covering key technology
- Assisted in program consolidation

Vice President, Operations – Oncology – ViRexx Medical Corp (April 2004 – December 2005)

Reporting directly to the President & Chief Operating Officer

Accountabilities:

- Oversee operation of the Division of Oncology
- Develop and oversee budgets for the Division of Oncology
- Oversee Product Development of the Division of Oncology
- Oversee Research and Development of the Division of Oncology
- Coordinate and oversee intellectual property management in the Division of Oncology
- Liaise with Clinical and Regulatory Affairs
- Identify licensing/partnering opportunities
- Liaise with Finance and Administration

Significant Achievements:

- GMP manufacture of product candidate
- Pre-CTA meeting with Health Canada

- Phase I clinical trial of product candidate
- Issuance of patents covering key technology

Vice President, Drug Development – ViRexx Research Inc (2002 – 2004)

Reporting directly to the Chief Executive Officer

Accountabilities:

- Oversee Product Development
- Liaise with Clinical and Regulatory departments
- Liaise with Research departments to streamline movement of commercial candidates through the Company's product pipeline
- Support regulatory and clinical submissions to Health Canada, US FDA and other international regulatory bodies related to clinical development of the Company's products
- Develop and oversee budgets related to Product Development
- Coordinate and oversee intellectual property
- Patent applications
- Trademark applications
- Dissemination of proprietary information
- Negotiate contracts related to contract manufacturing and contract research

Significant Achievements:

- Issuance of patents covering key technology
- Issuance of trademark covering key technology
- Receipt of AHFMR Phase III Technology Commercialization funding

Vice President, Product Development – Novolytic Inc (1999 – 2002)

Accountabilities:

- Oversee research and development activities
- Oversee developmental research for product candidates
- Prepare patent applications
- Negotiate contracts related to contract manufacturing and contract research

Significant Achievements:

- Filing of USA and international patent applications protecting key technology
- Approval of AHFMR Phase III Technology Commercialization Funding

Director, Research and Development – Thrombotics Inc (1997 – 1999)

Accountabilities:

- Lead a group of research and developmental scientists in the development and support of Company technologies with the aim of advancing the commercial interests of the Company
- Establish liaisons with key individuals in the medical, pharmaceutical and biotechnology communities
- Establish and co-ordinate laboratory and clinical trials, advancing products and commercial interests of the Company
- Identify novel technologies, advancing commercial interests of the Company

Significant Achievements:

- Drafted, filed and received issuance of patents protecting key technology

Laboratory Scientist – Department of Laboratory Medicine and Pathology, Capital Health Authority (1982 - 1997)

Accountabilities:

- Develop tests for use in the Division of Hematology
- Supervise student research projects
- Conduct self-directed research on select topics
- Evaluate new technology with the potential for implementation in routine and specialized testing
- Lecture courses in advanced haematology
- Liaise with companies in the transfer of technology developed in-house to the commercial market

Significant Achievements:

- Drafted, filed and received issuance of patents covering technologies with commercialization potential
- Established development and commercialization agreements with private sector companies for proprietary technologies

EDUCATION

University of Alberta
Edmonton, Alberta

Master of Science in Experimental Medicine (1982)
Thesis: Uptake of Dopamine and 5-HT in Blood Platelets

University of Alberta
Edmonton, Alberta

Bachelor of Science (1978)
Specialization: Microbiology

PATENTS

Inventor on compositions and methods patents issued in the United States and internationally.

List of patent families:

Methods for Determining Platelet Function

Patents issued in USA, Canada, and internationally

Methods for Determining Antiphospholipid Antibodies

Patents issued in USA

Compositions and Methods for Assessing Platelet/Leukocyte Function

Patents issued in USA and internationally

Compositions and Methods for Producing Vascular Occlusion

Patents issued and pending in USA and internationally

Compositions and Methods for Producing Vascular Occlusion Using a Solid-Phase Platelet Binding Agent

Patents issued and pending in USA and internationally

Methods of Treatment Using Vascular Occlusion in Combination with One or More Therapies

Patents issued and pending in USA and internationally

Compositions and Methods for Producing Materials that Bind Blood Cells and Platelets

Patents pending in USA and internationally

PUBLICATIONS & PRESENTATIONS

Kelly W. Burak, Andrew Stevens, John R. Kachura, David J. Sadler, **Michael W. Stewart**, Morris Sherman. TACE of HCC with Occlusin®50 and Doxorubin: Phase 1 Results of a New Embolic Agent. Canadian Digestive Diseases Week; March 3, 2008 (abstract).

Stewart MW. Occlusin™ Injection: A novel embolotherapeutic agent. Vascular Targeting Agents: Therapeutic & Diagnostic Development (Cambridge, MA); November 2004 (invited speaker).

Gupta S, Cheung P-Y, Haase E, Uweira R and **Stewart MW**. Site directed vascular targeting. Second International Conference on Vascular Targeting (Miami, FL), May 2004.

Chung AWY, Alonso-Escolano D, Radomski A, Jurasz P, **Stewart MW**, Malinski T and Radomski MW. Platelet-leukocyte aggregation induced by PAR agonists: Regulation by nitric oxide and matrix metalloproteinases. Br J Pharmacol 143(7):845-855, 2004.

Krishnamurti C, **Stewart MW**, Cutting MA and Rothwell SW. Assessment of omega-fatty acid supplemented human platelets for potential long-term storage. Thromb Res 105:139-145, 2002.

Jurasz P, **Stewart MW**, Radomski A, Khadour F, Duszyk M and Radomski M. Role of von Willebrand factor in tumor cell-induced platelet aggregation: Differential regulation by nitric oxide and prostacyclin. Br J Pharmacol 134:1104-1112, 2001.

Radomski A, **Stewart MW**, Jurasz P and Radomski M. Pharmacological characteristics of solid-phase von Willebrand factor in human platelets. Br J Pharmacol 134:1013-1020, 2001.

Rowe BH, Holroyd BR, Saddiqui M, Folk, D, Etches WS, Shuaib A and **Stewart MW**. Platelet hyperactivity and white blood cell interactions associated with ischemic cerebrovascular disease. Academic Emergency Medicine, SAEM 2000 (abstract)

Wilkinson V, Mathey P, **Stewart MW** and Finegan B. A novel solid-phase agonist for assessing platelet function in patients undergoing coronary artery bypass grafting. Soc Card Anesth, SCA 2000 (abstract)

Mathey P, Wilkinson V, **Stewart MW** and Finegan B. White cell / platelet interactions are increased in patients undergoing cardiac surgery. Soc Card Anesth, SCA 2000 (abstract)

Etches WS, Rowe B, Mousa S, Larratt L, Dzavik V, Person RH and **Stewart MW**. Diversity of response to anti-platelet agents by different patient subpopulations. ISTH 99, (abstract)

Evaluation of platelet function in volunteer apheresis donors and plateletpheresis products produced by three different apheresis instruments. Wong ECC, Oblitas J, **Stewart MW**, Leitman SF and Stroncek D. ISTH 99, (abstract)

Stang L, McClure W, **Stewart MW**, Ritchie DBC, Akabutu JJ and Etches WS. Laboratory assessment of rFVIIa levels – Disagreement between clot-based FVII and FVIIa assays during continuous infusion of rFVIIa. *Blood* 92:554a, 1998 (abstract)

Mousa SA, Lorelli W, Forsythe M and **Stewart MW**. Adhesion of human platelets to VWF - Mediated dense granule secretion is a platelet α IIb β 3 integrin-dependent process. *Blood* 92:71b, 1998 (abstract)

Stewart MW, Etches WS, Larratt L, Dzavik V and Mousa S. Evaluation of anti-IIb/IIIa IC50 in platelet hypo- and hyper-responsive patient populations using a novel platelet function assay. *Blood* 92:74b, 1998 (abstract)

Pierangeli SS, **Stewart M** and Harris EN. Report of an antiphospholipid wet workshop during the VIIth international symposium on antiphospholipid antibodies. *J Rheumat* 25: 156-160, 1998.

Stewart MW, McKay T, Schwind P and Gordon PA. Rapid detection of anticardiolipin antibodies. *Am J Hematol* 57: 315-319, 1998

Dai E, **Stewart M**, Ritchie B, Mesaali N, Raha S, Kolodziejczyk D, Lundstrom-Hobman M, Liu LY, Etches W, Nation N, Michalak M and Lucas A. Calreticulin, a potential vascular regulatory protein, reduces intimal hyperplasia after arterial injury. *Arteriosclerosis, Thrombosis and Vascular Biology* 17: 2359-68, 1997

Stewart MW, Etches WS, Boshkov LK, Mant MJ, Gordon PA and Shaw ARE. Platelet activation by a novel solid-phase agonist: Effects of vWf immobilised on polystyrene beads. *Br J Haematol* 97: 231-329, 1997.

Stewart MW, Etches WS and Gordon PA. Antiphospholipid antibody-dependent C5b-9 formation. *Br J Haematol* 96: 451-457, 1997.

Stewart MW, Etches WS, Boshkov LK and Gordon PA. Heparin-induced thrombocytopenia: An improved method of detection based on lumiaggregometry. In, Spivak J, Blume K, Bell W et al (eds): Yearbook of Hematology 1997, St. Louis, MO. Mosby-Year Book, pp 135-136, 1997.

Stewart MW, Etches WS, Shaw ARE and Gordon PA. VWF inhibitor detection by competitive ELISA. *J Immunol Meth* 200: 113-119, 1997.

Boshkov LK, Ritchie DBC, Dasgupta M, Etches W and **Stewart MW**. Detection of IgM VWF Inhibitor Associated with Clinical Bleeding. *Blood* 88 (suppl 1): 72b, 1996. (Abstract)

Wang Y, Palmer P, **Stewart MW**, Shaw ARE, Etches W and Boshkov LK. von Willebrand factor (VWF) Bead Assay: A Novel Platelet Hemostatic Test Sensitive to Loss of ATP Release and Glycoprotein Ib in Stored Platelet Concentrates. *Blood* 88: 628a, 1996. (Abstract)

Lucas A, Liu L-Y, Macen J, Nash P, Dai E, **Stewart M**, Graham K, Etches W, Boshkov L, Nation PN, Humen D, Hobman ML and McFadden G. A virus-encoded serine proteinase inhibitor, SERP-1, inhibits atherosclerotic plaque development following balloon angioplasty. *Circulation* 94:2890-2900,1996.

Chai BC, Etches WS, **Stewart MW** and Siminoski K. Bleeding in a patient taking Lorenzo's oil: Evidence for a vascular defect. *Postgrad Med J* 72:113-122, 1996.

Raha SK, **Stewart MW**, Michalak M, Etches WS, Lucas A, Jaworski DC and Ritchie DBC. Calreticulin prolongs whole blood clotting time via a platelet mediated pathway. Calreticulin Workshop (Italy) 1996 (abstract)

Raha SK, **Stewart MW**, Michalak M, Etches WS, Lucas A and Ritchie DBC. Calreticulin prolongs whole blood clotting time using the ST4 analyser. European Haematology Association Meeting (Paris) 1996 (abstract)

Lucas A, Dai E, Li-Ying L, Ritchie B, Mesali N, Lundstrom-Hobman M, **Stewart M**, Wei-dong Y, Boshkov LK and Michalak M. Calreticulin, a unique calcium binding protein, regulates vascular inflammatory and thrombotic responses to arterial injury. American Heart Assoc 68th Meeting 1995 (abstract)

Boshkov LK, **Stewart MW**, Etches WS, Shaw ARE, and Ulan R. Uremic platelets exposed to vWf-coated beads show both abnormally low and high platelet activation. Blood 86:866a, 1995 (abstract)

Shaw ARE, Etches WS, Poppema S, Gordon PA and **Stewart MW**. Platelet activation by immobilised von Willebrand factor-coated beads: Evidence for a novel adhesion mechanism involving $\alpha v\beta 3$ and GPIIb/IIIa. Blood 86: 554a, 1995 (abstract)

Stewart MW, Etches WS and Gordon PA. Antiphospholipid antibody-dependent, complement-mediated platelet destruction. Blood 86: 86a, 1995 (abstract)

Stewart MW, Etches WS, Boshkov LK and Gordon PA. Heparin-induced thrombocytopenia: An improved method of detection based on lumi-aggregometry. Br J Haematol 91:173-177, 1995

Craik JD, **Stewart MW** and Cheesman CI. Glut-3 (Brain-type) glucose transporter polypeptides in human blood platelets. Thromb Res 79:461-469, 1995

Stewart MW, Gordon PA, Etches WS, Marusyk H, Poppema S, Bigam C and Sykes B. Binding of cardiolipin to polystyrene beads: Evidence for a lamellar phase orientation. Br J Haematol 90:900-905, 1995

Stewart MW, Etches WS, Boshkov LK and Gordon PA. Heparin-induced thrombocytopenia (HIT): An improved method of detection based on lumi-aggregometry. Blood 84: 691a, 1994.

Kaufman S, **Stewart M** and Gordon P. Evaluation of hemostatic activity of desamino-D-arginine vasopressin (DDAVP) in uremic rats. Thromb Res 73: 53, 1994.

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Stewart MW, Etches WS, Lian J, Gordon PA, Hsuanyu Y and Shaw ARE. Platelet activation induced by immobilised vWf involving GPIb and GPIIb-IIIa. Blood 80: 130a, 1992.

Lian J, **Stewart MW**, Etches WS, Hsuanya Y and Shaw ARE. Platelet activation by immobilised collagen involves $\beta 1$ integrin and is responsive to mechanical force. Blood 80: 57a, 1992.

Stewart MW, McAdam L, Petryk L, Etches WS and Gordon PA. Effect of ACL serum and purified ACL IgG on platelet aggregation. Blood 80: 512a, 1992.

Stewart MW, Etches WS and Gordon PA. Detection of antiphospholipid antibodies by flow cytometry. *Thromb Haemost* 65: 1089, 1991.

Stewart MW and Gordon PA. Effect of chlorobutanol and DDAVP on whole blood aggregation/clotting. *Thromb Res* 64: 757, 1991.

Gilchrist M, **Stewart MW**, Etches WS and Gordon PA. Rapid diagnosis of von Willebrand's disease using ELISA technology. *Thromb Res* 57: 659, 1990.

Stewart MW, Etches WS and Gordon PA. Analysis of von Willebrand factor binding to platelets by flow cytometry. *Thromb Res* 50: 228, 1988.

Stewart MW, Etches WS and Gordon PA. A rapid method for von Willebrand factor multimer analysis. *Can J Med Tech* 49: 225, 1987.

Stewart MW, Etches PC, and Gordon PA. Sensitive and rapid measurement of C-reactive protein (CRP) by lipid agglutination. *J Clin Path* 40: 585, 1987.

Brien W and **Stewart MW**. A competitive ELISA technique for the measurement of von Willebrand Factor Antigen (vWf:Ag) using staphylococcal protein A peroxidase. *Clin Biochem* 19: 179, 1986.

Keron G, Gordon PA, Lee SF, **Stewart MW**, Gelfand E. Alterations in plasma-, monocyte-, and lymphocyte-associated fibronectin during cardiopulmonary bypass surgery. *Am J Clin Path* 83: 629, 1985.

Nihei T and **Stewart MW**. Two systems of dopamine transport in blood platelets. *Biophys J* 33: 17a, 1981.