CHARLES KUNSCH, PH.D.

Broadly experienced leader with 30 years of strategic leadership experience and a track record of achievement and value creation in pharmaceutical R&D and business development. Strong aptitude for science:business interface with a passion for early-stage biopharma company creation and financing. Highly valued Board member to early-stage biotech companies with decades of experience in discovery research, corporate strategy and transacting complex early-stage equity investments and business development relationships. **Key qualifications and achievements include:**

- **Critical scientific assessment skills coupled with flexible and creative business development and venture Investment/company creation experience** resulting in multiple partnerships and venture investments.
- **Experienced in biopharma corporate governance** through > 15 Board roles (see specifics below)
- **Well-established global network of business development, entrepreneurs and venture/finance professionals** in the life science community.
- **Created value by initiating and overseeing several successful drug discovery programs** that advanced four first-in-class therapeutics from discovery research into clinical development for cardiovascular and metabolic disease, rheumatoid arthritis, asthma and chronic transplant rejection.
- **Exceptional communicator** with strong interpersonal, strategic planning, and organizational skills.
- **Inventor on dozens of patents, author of more than 100 scientific articles**, book chapters and abstracts, and invited Speaker/panelist (addendum provided upon request).

CAREER SYNOPSIS

ABBVIE – Cambridge, MA 9.2013 to 10.2023

MANAGING DIRECTOR, ABBVIE VENTURES

Responsible for leading the sourcing, technical evaluation, negotiation and deal closure for AbbVie's corporate venture investment group across all therapeutic areas. Initiated yearly strategic planning discussions with AbbVie R&D and Venture leadership to refine/optimize Ventures strategic focus. Represented AbbVie on numerous Board roles within portfolio.

Key Accomplishments:

- **Deal lead and Board representative on numerous equity investments (seed through Series D; details below) totaling more than $0.5B** in direct investment in biotech companies across AbbVie's therapeutic areas. Investments resulted in several successful exits and pharma partnerships.

ABBVIE (Formerly Abbott Laboratories) – Worcester, MA 8.2009 to 9.2013

DIRECTOR, GLOBAL EXTERNAL RESEARCH

Regional (east coast) scientific scout within Global Pharmaceutical R&D. Responsible for the identification, technical assessment, development of research plans and implementation of discovery-stage external innovation from biotech, academia and consortia (across diverse therapeutic areas but with an emphasis on Immunology and biotherapeutics technologies).

Key Accomplishments

- **Sourced and negotiated ~12 partnerships** (licensing, options, collaborative research agreements) with academia, biotech and consortia
- **Established global early-stage regional search and evaluation strategy** for Immunology, Biotherapeutics, and Drug Discovery Technologies.
- **Increased early-stage deal-flow by 40%** and improved governance process leading to reduced time to key gating decisions.
- **Developed strategy and secured senior leadership support** for establishing academic partnerships resulting in several strategic academic alliances.

SHAW SCIENCE PARTNERS, INC. – Atlanta, GA 4.2009 to 7.2009

(Shaw Science Partners is an industry leader in developing and managing scientific and medical messaging for new pharmaceutical products)

CONSULTANT

Led scientific evaluation of preclinical and clinical data, thought leader interviews and strategic direction for the development of commercial communications for a first-in-class late-stage therapy for Alzheimer's disease and oncology.

ATHEROGENICS, INC. – Alpharetta, GA 1997 to 3.2009

(AtheroGenics was a publically-traded pharmaceutical company focused on the discovery, development and commercialization of novel pharmaceutical products for the treatment of chronic inflammatory diseases including diabetes and atherosclerosis)

VICE PRESIDENT, BIOLOGY (2.2007 to 3.2009)

SENIOR DIRECTOR, BIOLOGY (2.2003 to 2.2007)

DIRECTOR, BIOLOGY (7.2000 to 2.2003)

Provided overall strategic direction and scientific leadership for Discovery and Biology efforts in Drug Discovery and Clinical Development programs. Managed a scientific staff of 18 with responsibilities in target identification/validation, assay development and screening, lead selection/optimization, pharmacology, mechanism of action and clinical/preclinical biomarker assay development/evaluation. Represented and promoted the company's scientific programs to external and internal stakeholders. Served as primary internal scientific liaison to Business Development, Clinical Development, Regulatory Affairs and Medical Marketing.

Key Accomplishments

- **Successfully led multidisciplinary teams that advanced four small molecule compounds from early-stage Discovery Research into Clinical Development** in cardiovascular disease, rheumatoid arthritis, chronic transplant rejection, asthma and diabetes.
- **Served as lead preclinical expert with corporate partner Astra-Zeneca and a leading Science Branding agency (Shaw Science Partners)** to create and develop scientific/medical messaging in preparation for global product launch.
- **Organized & participated in several global scientific, clinical and commercial advisory boards** in cardiovascular disease, diabetes and rheumatoid arthritis.
- **Implemented a Translational Research effort into the R&D organization** to design mechanistic-rich clinical studies. Implemented pharmacogenomic and biomarker collaborations, established in-house capability for biomarker analysis and oversaw both internal and out-sourced studies. Efforts generated critical data providing mechanistic insight for lead compound in cardiovascular disease and diabetes.
- **Key participant in pre-IND meetings with FDA**, developing all preclinical study reports and drafting preclinical pharmacology sections of regulatory documents (5 INDs and 1 NDA).

ASSOCIATE DIRECTOR, MOLECULAR BIOLOGY AND FUNCTIONAL GENOMICS (9.1997 to 7.2000)

Recruited by CEO to create a functional genomics group for target identification/validation and to build-out molecular and cellular biology expertise. Led a team responsible for assay development, screening, and mechanism of action studies. Broadened technology platform from cardiovascular disease to other therapeutic areas thus significantly expanding R&D pipeline.

Key Accomplishments

- **Established state-of-the-art genomics, bioinformatics and cell & molecular biology expertise** by recruiting and retaining critical personnel; established proprietary model systems for drug target identification & validation in vascular inflammation; efforts resulted in several internal drug discovery programs.
- **Championed discussions with biotech and Pharma companies** to collaborate on use of proprietary technology for drug target identification and validation for chronic inflammatory diseases

HUMAN GENOME SCIENCES, INC. – Rockville, MD 1993 to 1997

(HGS was a development-stage R&D biotech company launched in 1993; one of the first genomics companies established to commercialize discoveries from the human genome; acquired by GSK in 2012)

RESEARCH SCIENTIST, Exploratory Research, Microbial Genomics Research Group (1994 to 1997)
POSTDOCTORAL FELLOW, Department of Molecular Biology (1993 to 1994)
Recruited by VP of R&D to join the start-up organization as one of the first scientists. Established new technologies for high-throughput gene sequencing, genome annotation and bioinformatics that helped HGS become one of the first organizations to completely sequence the expressed human genome.

Key Accomplishments

- **Served as one of three Scientists to launch new division charged with sequencing the genomes of medically-important bacteria** and translating that information to new vaccine and antibiotic drug discovery.
- **Successfully paved the way for key value-driving collaborations** with Pharmacia & Upjohn and MedImmune; pivotal participant in due diligence activities and served on joint management team for programs
- **Directed research team of 12 scientists that established high-throughput methods for cloning, expression and purification of hundreds** of novel bacterial proteins for antibacterial drug and vaccine development.

ROCHE INSTITUTE OF MOLECULAR BIOLOGY – Nutley, NJ 1991 to 1993

POSTDOCTORAL FELLOW, Department of Gene Regulation
Mentor: Craig A. Rosen, Ph.D. – Studied transcriptional regulation by the NF-κB transcription factor family and their involvement in inflammatory gene regulation. Results revealed a novel mode of gene regulation by NF-κB family.

EDUCATION & BOARD ACTIVITIES

Ph.D., Microbiology and Immunology - The Pennsylvania State University College of Medicine, Hershey, PA 1991
Thesis project: Molecular and cellular regulation of HIV-1 infection of the human fetal nervous system

BS, Biological Science – Drexel University, 1986

NONPROFIT and UNIVERSITY ADVISORY BOARDS:

Board of Trustees, Executive Committee/Clerk; Massachusetts Biomedical Initiatives	2020 - present
Board of Directors; Penn State Research Foundation	2023 - present
External Advisory Committee; Dartmouth Innovation Accelerator for Cancer	2020 - present
External Advisory Committee; Yale University Blavatnik Fund for Innovation	2018 - 2022
Industry Advisory Member; UMass Chan Medical School New Ventures BRIDGE funding program	2020 - present
External Advisory Member; University of Pittsburgh New Ventures Gap Fund	2021 – present

BIOTECH BOARD ROLES

- **FireCyte Therapeutics (Board Member)** 2021 – 2023
  Boston-based company (seed stage) developing novel biotherapeutics for the treatment of glaucoma
- **Stealth Company (Board Member)** 2023
  Spinout from Univ of Chicago (seed stage) developing a novel chemoproteomic platform and small molecule therapeutics for Oncology and Immunology
- **Stealth Company (Board Member)** 2023
  Spinout from University of Michigan (seed-stage) developing small molecule modulators of the 20S proteosome for Oncology and Neurodegenerative disease
- **EndLyz Therapeutics (Board Member)** 2021 – 2023
  London-based company (seed-stage) developing small molecule positive allosteric modulators for restoration of lysosomal function
- **Nitrase Therapeutics (Board Member)** 2023
  Burlingame, CA-based company (series A-stage) developing therapeutics to a novel family of protein nitrating enzymes

- **Kojin Therapeutics (Board Observer)** 2021 – 2023
  Boston-based company (series A-stage) developing small molecule modulators of ferroptosis
- **Quanta Therapeutics (Board Observer)** 2021 – 2023
  SF-based company (series D-stage) developing small molecule modulators of KRAS and c-RAF
- **Accent Therapeutics (Board Observer)** 2020 – 2023
  Boston-based company (series C-stage) developing small molecule modulators of RNA modulating proteins
- **Stealth Biotech Company (Board Observer)** 2020 – 2023
  Boston-based company (seed-stage) developing a platform for targeted protein degradation
- **Faze Medicines (Board Observer)** 2019 – 2022
  Boston-based company (series A-stage) developing small molecule modulators of biomolecular condensates
- **Disc Medicines (Board Observer);** NASDAQ: IRON 2020 – 2022
  Boston-based company developing modulators of iron homeostasis
- **Prevail Therapeutics (Board Observer);** Acquired by Lilly 2019 – 2021
  NYC-based company (series C) developing gene therapy for neurodegenerative disease
- **Quentis Therapeutics (Board Observer);** 2017 – 2019
  NYC-based company (series A) targeting ER stress for Oncology
- **Paragen Bio (Board Member)** 2018 – 2020
  Queensland, Aus-based company (seed-stage) developing bioteherapeutics derived from helminths for GI disease
- **Ribometrix (Board Observer)** 2017 – 2020
  Durham, NC-based company (series B-stage) developing RNA binding small molecule programs
- **Aquinnah Pharmaceuticals (Board Observer)** 2017 – 2023
  Boston-based company (series A-stage) developing small molecules for neuronal stress granules
- **Avaxia Therapeutics (Board Observer)** 2015 – 2017
  Boston-based company developing bovine-derived IgGs for GI disease

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ADDENDUM OF PUBLICATIONS, PATENTS AND SYMPOSIA WILL BE PROVIDED SEPARATELY

CHARLES KUNSCH, PH.D., ADDENDUM

ISSUED PATENTS

1. *Staphylococcus aureus* polynucleotide and sequences; 6,737,248
2. Human B-cell Translocation Genes 2 & 3 antibodies; 6,689,360
3. *Staphylococcus aureus* polynucleotide and sequences; 6,593,114
4. *Streptococcus pneumonia* antigens and vaccines; 6,573,082
5. *Enterococcus feacalis* EF040 and uses therefore; 6,448,043
6. *Streptococcus pneumoniae* polynucleotides and sequences; 6,420,135
7. Human B-cell Translocation Genes 2 & 3; 6,258,777
8. Human B-cell Translocation Genes 2 & 3; 6,013,469
9. NERF Genes; 5,721,113
10. *Streptococcus pneumoniae* SP036 polynucleotides; 6,887,663
11. *Streptococcus pneumoniae* SP042 polynucleotides; 6,929,930
12. *Streptococcus pneumoniae* SP036 polynucleotides, polypeptides, antigens and vaccines; 7,056,510
13. *Enterococcus feacalis* polynucleotides encoding EF059; 6,913,907
14. Diagnostic methods based on human BTG-2 and BTG-3 polypeptides; 7,049,081
15. *Streptococcus pneumoniae* polynucleotides and sequences; 7,141,418
16. Protection against oxidative stress and inflammation by a cytoprotective response element; 7,247,714

- Several pending patent applications

PUBLICATIONS – FULL PAPERS

1. Whiting, R.C., Benedict, R.C., **Kunsch, C.A.** and Woychik, J.H.
Effect of sodium chloride levels in frankfurters on the growth of Clostridium sporogenes and Staphylococcus aureus.
Food Sci., 49: 351-355, 1984.

2. Whiting, R.C., Benedict, R.C., **Kunsch, C.A.** and Blalock, D.
Growth of Clostridium sporogenes and Staphylococcus aureus at different temperatures in cooked corned beef made with reduced levels of sodium chloride.
J. Food Sci., 50:304-307, 1985.

3. Smith, J.L., Bencivengo, M.M., Buchanan, R.L. and **Kunsch, C.A**.
Enterotoxin A production in Staphylococcus aureus: inhibition by glucose.
Arch. Microbiol., 144:131-136, 1986.

4. Smith, J.L., Bencivengo, M.M. and **Kunsch, C.A.**
Enterotoxin A synthesis in Staphylococcus aureus: inhibition by glycerol and maltose.
J. Gen. Microbiol., 132:3375-3380, 1986.

5. Buchanan, R.L., Stahl, H.G., Ocker, L.A., **Kunsch, C.A.** and Purcell, C.J. Jr.
Thioglycerol inhibition of growth and aflatoxin production in Aspergillus parasiticus.
J. Gen. Microbiol., 132:2767-2773, 1986.

6. Buchanan, R.L., Wiseman, D.W., Ocker, L.A., Stahl, H.G., **Kunsch, C.A**. and Purcell, C.
The effects of β-methylglucose, 3-0-methylglucose and thioglucose on aflatoxin production by Aspergillus parasiticus.
J. Food Safety, 8:127-138, 1987.

7. Smith, J.L., Bencivengo, M.M., Buchanan, R.L. and **Kunsch, C.A.**
Effect of glucose analogs on the synthesis of staphylococcal enterotoxin A.
J. Food Safety, 8:139-146, 1987.

8. Buchanan, R.L., Zaika, L.L., **Kunsch, C.A.**, Purcell, C.J. Jr. and Mertz, S.E.
Isolation of a caffeine-resistant mutant of Aspergillus parasiticus.
J. Food Sci., 52:194-196, 1987.

9. Smith, J.L., Maurer, M.J., Bencivengo, M.M. and **Kunsch, C.A.**
Effect of sodium chloride on uptake of substrate by Staphylococcus aureus 196E.
J. Food Protection, 50:968-974, 1987.

10. Harouse, J.A., **Kunsch, C**., Hartle, H.T., Laughlin, M.A., Hoxie, J.A., Wigdahl, B. and Gonzalez-Scarano, F. CD4-independent infection of human neural cells by human immunodeficiency virus type-1.
J. Virology, 63:2527-2533, 1989.

11. **Kunsch, C.** and Wigdahl, B.
Transient expression of the human immunodeficiency virus type 1 genome results in a nonproductive infection in human fetal dorsal root ganglia glial cells.
Virology, 173:715-722, 1989.

12. **Kunsch, C.,** Hartle, H.T. and Wigdahl, B.
Infection of human fetal dorsal root ganglia glial cell population with human immunodeficiency virus type-1 involves and entry mechanism independent of the CD4 T4A epitope.
J. Virology, 63:5054-5061, 1989.

13. **Kunsch, C.** and Wigdahl, B.
Analysis of nonproductive human immunodeficiency virus type-1 infection of human fetal dorsal root ganglia glial cells.
Intervirology, 31:147-158, 1990.

14. **Kunsch, C.** and Wigdahl, B.
Maintenance of human immunodeficiency virus type-1 proviral DNA in human fetal dorsal root ganglia neural cells following a nonproductive infection.
J. Leuk. Biol., 49:505-510, 1990.

15. Gonzalez-Scarano, F., Harouse, J.M., Kenny, J.J., **Kunsch, C.**, Spitalnik, S.L., and Wigdahl, B.
Human immunodeficiency virus infection of neural cells.
Seminars in Virology, 3:225-234, 1992.

16. **Kunsch, C.**, Ruben, S.M. and Rosen, C.A.
Selection of optimal κB/rel DNA binding motifs: Interaction of both subunits of NF-κB with DNA is required for transcriptional activation.
Mol. Cell. Biol., 12:4412-4421, 1992.

17. Coleman, T.A., **Kunsch, C.**, Maher, M., Ruben, S.M., and Rosen, C.A.
Acquisition of NFKB1-selective DNA-binding by substitution of four amino acid residues from NFKB1 in RelA.
Mol. Cell. Biol., 16:3850-3859, 1993.

18. Marui, N., Offermann, M.K., Swerlick, R., **Kunsch, C.**, Rosen, C.A., Ahmed, M. Alexander, R.W., and Medford, R.M.
VCAM-1 gene transcription and expression is regulated through an antioxidant sensitive mechanism in human vascular endothelial cells.
J. Clin. Invest., 92:1866-1874, 1993.

19. **Kunsch, C**. and Rosen, C.A.
NF-κB subunit-specific regulation of the Interleukin-8 promoter.
Mol. Cell. Biol., 13:6137-6146, 1993.

20. McIntyre, K.W., Lombard-Gillooly, K., Perez, J.R., **Kunsch, C.**, Sarmiento, U.M., Larrigan, D.L., Landreth, K.T., and Narayanan, R.
A sense phosphorothioate oligonucleotide directed to the initiation codon of transcription factor NF-κB p65 causes sequence-specific immune stimulation.
J. Antisense Res. and Devel., 3:309-322, 1993.

21. Oeth, P.A., Parry, G.C.N., **Kunsch, C.**, Nantermet, P., Rosen, C.A., and Mackman, N.
Lipopolysaccharide induction of tissue factor gene expression in monocytic cells is mediated by binding of c-Rel/p65 heterodimers to a κB-like site.
Mol. Cell. Biol., 14:3772-3781, 1994.

22. **Kunsch, C.**, Lang, R.K., Rosen, C.A. and Shannon, M.F.
Synergistic transcriptional activation of the interleukin-8 gene by NF-κB p65 (RelA) and NF-IL6.
J. Immunol., 153:153-164, 1994.

23. Adams M.D., Kerlavage, A.R., et al.
Initial assessment of human gene diversity and expression patterns based upon 52 million base pairs of cDNA sequence.
Nature, 377 (Suppl 6547S):3-174, 1995.

24. Ray, K., **Kunsch, C.**, Bonner, L., and Robishaw, J.D.
Isolation of cDNA clones encoding eight different human G protein γ subunits, including three novel forms designated the γ-4, γ-9, and γ-10 subunits.
J. Biol. Chem., 270(37):21765-21771, 1995.

25. Smeyne, R.J., Chu, T., Lewin, A., Bian, F., S.-Crisman, S., **Kunsch, C**., Lira, S.A., and Oberdick, J.
Local control of granule cell generation by cerebellar purkinje cells.
Mol. Cell. Neurosci., 6(3):230-51, 1995.

26. Oettgen, J.P., Akbarali, Y., Boltax, J., **Kunsch, C.** and Libermann, T.A.
Characterization of NERF, a novel member of the ETS transcription factor family.
Mol. Cell. Biol., 16:5091-5106, 1996.

27. Oettgen, P., Alani, R.M., Barcinski, M.A., Brown, L., Akbarali, Y., Boltax, J., **Kunsch, C.**, Munger, K., Libermann, T.A.
Isolation and characterization of a novel epithelium-specific transcription factor, ESE-1, a member of the ets family.
Mol Cell Biol., 17(8):4419-4433, 1997.

28. Oettgen P., Barcinski M., Alani, R.M., Akbarali, Y., Boltax, J., Munger K., **Kunsch, C.**, Brown, L., and Libermann, T.A.
The Novel Epithelial-Specific Ets Transcription Factor Gene ESX Maps to Human Chromosome1q32.1.
Genomics, 45(2):456-457, 1997.

29. Heinrichs, J.H., Gatlin, L.E., **Kunsch, C.**, Choi, G.H., and Hanson, M.S.
Identification and characterization of SirA, an iron-regulated protein from *Staphylococcus aureus*.
J Bacteriol., 181(5):1436-1443, 1999.

30. Oettgen, P., Kas, K., Dube, A., Gu, X., Grall, F., Thamrongsak, U., Akbarali, Y., Finger, E., Boltax, J., Endress, G., Munger, K., **Kunsch, C.**, Libermann, T.A.
Characterization of ESE-2, a novel ESE-1-related Ets transcription factor that is restricted to glandular epithelium and differentiated keratinocytes.
J. Biol. Chem., 274(41):29439-29452, 1999.

31. Balcueva, E.A., Wang, Q., Hughes, H., **Kunsch, C**., Yu, Z., Robishaw J.D.
Human G protein gamma(11) and gamma(14) subtypes define a new functional subclass.
Exp Cell Res., 257(2):310-9, 2000.

32. Oettgen, P., Finger, E., Sun Z., Akbarali, Y., Thamrongsak, U., Boltax, J., Grall, F., Dube, A., Weiss, A., Brown, L., Quinn, G., Kas, K., Endress, G., **Kunsch, C.**, Libermann, T.A.
PDEF, a novel prostate epithelium-specific ets transcription factor, interacts with the androgen receptor and activates prostate-specific antigen gene expression.
J. Biol. Chem., 275(2):1216-1225, 2000.

33. Wizemann, T.M., Heinrichs, J.H., Adamou, J.E., Erwin, A.L., **Kunsch, C.**, Choi, G.H., Barash, S.C., Rosen, C.A., Masure, H.R., Tuomanen, E., Gayle, A., Brewah, Y.A., Walsh, W., Barren, P., Lathigra, R., Hanson, M., Langermann, S., Johnson, S., and Koenig, S.
Use of a whole-genome-approach to identify vaccine molecules affording protection against *Streptococcus pneumoniae* infection.
Infection and Immunity, 69(3):1593-1598, 2001.

34. Meng, C.Q., Somers, P.K., Rachita, C.L., Holt, L.A., Hoong, L.K., Zheng, S.X., Simpson, J.E., Hill, R.R., Olliff, L.K., **Kunsch, C.**, Sundell, C.L., Parthasarathy, S., Saxena, U., Sikorski, J.A., Wasserman, M.A.
Novel phenolic antioxidants as multifunctional inhibitors of inducible VCAM-1 expression for use in atherosclerosis.
Bioorg. Med. Chem. Lett., 12:2545-2548, 2002.

35. Wasserman, M.A., Sundell, C.L., **Kunsch, C.**, Edwards, D., Meng, C.Q., Medford, R.M.
The chemistry and pharmacology of vascular protectants: A novel approach to the treatment of atherosclerosis and coronary artery disease.
Am. J. Cardiol., 91(3A):34A-40A. 2003.

36. Chen, X.L., Varner, S.E., Rao, A.S., Grey, J.Y., Thomas, S., Cook, C.K., Wasserman, M.A., Medford, R.M., Jaiswal, A.K., and **Kunsch, C.**
Laminar shear stress induction of antioxidant response element-mediated genes in endothelial cells: A novel anti-inflammatory mechanism.
J. Biol. Chem., 278:703-711, 2003.

37. **Kunsch, C.**, Luchoomun, J., Grey, J.Y., Olliff, L.K., Wasserman, M.A., Saxena, U., and Medford, R.M.
Selective inhibition of endothelial and monocyte redox-sensitive genes by AGI-1067: A novel antioxidant and anti-inflammatory agent.
J. Pharmacol. Exp. Ther., 308:820-829, 2004.

38. Meng, C.Q., Zheng, X.S., Ni, L., Ye, Z., Simpson, J.E., Worsencroft, K.J., Hotema, M.R., Weingarten, M.D., Skudlarek, J.W., Gilmore, J.M., Hoong, L.K., Hill, R.R., Marino, E.M., Suen, K-L., **Kunsch, C.**, Wasserman, M.A., and Sikorski, J.A.
Discovery of novel heteroaryl-substituted chalcones as inhibitors of TNF-α-induced VCAM-1 expression.
Bioorg. Med. Chem. Lett., 14:1513-1517, 2004.

39. Meng, C.Q., Somers, P.K., Hoong, L.K., Zheng, S.X., Ye, Z., Worsecroft, K.J., Simpson, J.E., Hotema, M.R., Weingarten, M.D., Hill, R.R., Marino, E.M., Suen, K-L., Luchoomun, J., **Kunsch, C.**, Landers, L.K., Stefanopoulos, D., Howard, R.B., Sundell, C.L., Saxena, U., Wasserman, M.A., and Sikorski, J.A.
Discovery of novel phenolic antioxidants as inhibitors of VCAM-1 expression for use in chronic inflammatory diseases.
J. Med. Chem., 47(25):6420-6432, 2004.

40. Chen, X.L., Grey, J.Y., Thomas, S., Qiu, F.H., Marino-Rodriuguez, E., Medford, R.M., Wasserman, M.A., and **Kunsch, C.**
Role of sphingosine kinase-1 in TNF-α-induced monocyte chemoattractant protein-1 gene expression in endothelial cells: up-regulation by oscillatory flow.
Am. J. Physiol. Heart Circ. Physiol., 287:H1452-H1458, 2004.

41. **Kunsch, C.**, Luchoomun, J., Chen, X-L., Dodd, G., Karu, K.S., Meng, C.Q., Marino, E., Olliff, L.K., Piper, J.D., Qiu, F-H., Sikorski, J.A., Somers, P.K., Suen, K.L., Thomas, S., Whalen, A.M., Wasserman, M.A., Sundell, C.L.
AGIX-4207, a novel antioxidant and anti-inflammatory compound: Cellular and biochemical characterization of antioxidant activity and inhibition of redox-sensitive inflammatory gene expression.
J. Pharmacol. Exp. Ther., 313 (2):492-501, 2005.

42. Chen, X.-L., Dodd, G., Thomas, S., Zhang, X., Wasserman, M.A., Rovin, B. and **Kunsch, C.**
Activation of the Nrf2/ARE pathway protects endothelial cells from oxidant injury and inhibits inflammatory gene expression.
Am. J. Physiol. Heart Circ. Physiol., 290:H1862-H1870, 2006.

43. Luyendyk, J.P., Piper, J.D., Tencati, M., Reddy, K.V., Zhang, R., Luchoomun, J., Chen, X.-L., Min, W., **Kunsch, C.**, Mackman, N.
A novel class of antioxidant compounds inhibits LPS induction of tissue factor by reducing the activation of ASK1 and MAP kinases.
Arterioscler. Thromb. Vasc. Biol., 27:1857-1863, 2007.

44. Meng, C.Q., Ni, L., Worsencroft, K.J., Ye, Z., Weingarten, M.D., Simpson, J.E., Skudlarek, J.W., Marino, E.M., Suen, K-L., **Kunsch, C.**, Souder, A., Howard, R.B., Sundell, C.L., Wasserman, M.A., Sikorski, J.A.
Carboxylated, heteroaryl-substituted chalcones as inhibitors of vascular cell adhesion molecule-1 expression for use in chronic inflammatory diseases.
J. Med. Chem., 50:1304-1315, 2007.

45. Serebruany, V., Malinin, A., Qiu, F-H., Xu, X.-C., **Kunsch, C**., Scott, R.A.
Selective thromboxane inhibition by the vascular protectant AGI-1067: Results of the Assesment of Lipoprotein Profiles (ALPS) biomarkers in vitro and in vivo substudy.
J. Thromb. Thrombolysis, 27(4): 438-446, 2009.

46. Chen, X.-L., Dodd, G. and **Kunsch C.**
Sulfurophane inhibits TNF-α-induced activation of p38 MAP kinase and VCAM-1 and MCP-1 expression in endothelial cells.
J. Inflammation Research, 58(8):513-521, 2009.

47. Crim, W.S., Wu, R., Carter, J.D., Cole, B.K., Trace, A.P., Mirmira, R.G., **Kunsch, C**., Nadler, J.L. and Nunemaker, C.S.
The novel antioxidant and anti-inflammatory compound AGI-1067 enhances insulin secretion and glucose sensitivity in mouse pancreatic islets.
Mol. and Cell. Endocrinology, 323:426-255, 2010.

PUBLICATIONS – INVITED BOOK CHAPTERS & REVIEW ARTICLES

1. Wigdahl, B., **Kunsch, C.** and Guyton, R. A.
Molecular neuropathogenesis of human immunodeficiency virus infection.
In: Retroviruses of human A.I.D.S. and related diseases (Ed. M. Girard and L. Vallette), Pasteur vaccins, Marnes-La-Coquette/Paris, France, pp. 17-26, 1988.

2. **Kunsch, C.** and Wigdahl, B.
Role of HIV in human nervous system dysfunction.
AIDS Research and Human Retroviruses, 5:369-374, 1989.

3. Wigdahl, B. and **Kunsch, C.**
Human immunodeficiency virus and neurologic dysfunction.
Progress in Medical Virology, 37:1-46, 1990.

4. **Kunsch, C.** and Wigdahl, B.
Neuropathogenic parameters of human immunodeficiency virus infection.
AIDS Research Reviews, 1:165-188, 1991.

5. **Kunsch, C.** and Medford, R.M.
Oxidative stress as a modulator of gene expression in the vasculature.
Circ. Research, 85:753-766, 1999.

6. **Kunsch, C.** and Medford, R.M.
Oxidation-sensitive transcription and gene expression in atherosclerosis.
In: Oxidative Stress and Vascular Disease, (Ed. John F. Keany)
Kluwer Academic Publishers, Boston, pp. 135-154, 2000.

7. Chen X.L. and **Kunsch, C**.
Induction of cytoprotective genes through the Nrf2/antioxidant response element pathway: a new therapeutic approach for the treatment of inflammatory disease.
Curr. Pharm. Design, 10:879-891, 2004.

8. **Kunsch, C.** and Chen X.-L.
Reactive oxygen species as mediators of signal transduction in cardiovascular diseases.
In: Antioxidants and Cardiovascular Disease (Eds. J.C. Tardif and M. G. Bourassa), Kluwer-Academic Publishers, Boston, pp. 103-131, 2006.

9. **Kunsch, C.**, Sikorski, J.A. and Sundell C.
Antioxidants as therapeutics for rheumatoid arthritis.
In: Current Medicinal Chemistry – Immunology, Endocrine and Metabolic Agents, 5(3):249-258, 2005.

10. Chen, X.L., **Kunsch, C.,** and Sinibaldi, D.
Hemodynamic stress regulation of inflammatory gene expression in atherogenesis.
In: Progress in Inflammation Research, (Ed. James A. Pitzer) Nova Science Publishers, pp1-14, 2006.