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Profile

Highly motivated scientist and leader with over 25 years of experience in the pharmaceutical and biotechnology industry. Broad range of deep expertise in multiple therapeutic areas including oncology, inflammation, autoimmune disease, ophthalmology and cardiovascular disease, and experience in the identification and preclinical development of both small molecule and protein/antibody based therapeutics. Exceptional success record in moving projects from target identification and validation, high throughput screening, lead validation, lead optimization, and early clinical development including the development and implementation of translational biomarker and pharmacodynamic assays for novel targets and novel mechanisms. Strong track record of peer reviewed publications and issued patents. Dynamic individual experienced in high level strategic planning, attention to detail, and solving unique and difficult challenges. Proven leadership, excellence in motivating and empowering direct and indirect reports, and the ability to communicate and present complex data and projects in a clear and comprehensive fashion.

Experience

GERRITSEN CONSULTING. SAN MATEO CALIFORNIA 2010-present
CONSULTING PROFESSOR, DEPARTMENT OF SURGERY, STANFORD UNIVERSITY 2010-present

Independent biotechnology consultant on topics related to biotherapeutics/drug discovery in the therapeutic areas of oncology, immuno-oncology, ophthalmology, autoimmune diseases/ inflammation and angiogenesis related diseases. I have worked on projects requiring expertise in both small molecule and biologic drugs including those targeting protein kinases, matrix metalloproteinases, phosphatase, steroid and other nuclear receptors, CAR-T cell therapy, and novel small molecule approaches such as irreversible and covalent reversible inhibitors, targeted therapies, and bromo-domain targeted therapies. Projects involve assessment of research strategy, target selection and intellectual property positions, compound selection criteria, data quality control and management, selection and development of protocols for cell based assays, pharmacodynamic assays and clinical biomarker studies, translational biology approaches for patient stratification, preclinical assays that can be used to identify potential patient phenotype/genotypes, screening contract research organizations and academic laboratories for contracts and collaborations, establishing collaborations and work orders, preparation and editing of investigator brochures, IND documents, clinical protocols, SOPs for clinical trials, manuscripts, poster and meeting presentations, and evaluation of research and pipeline portfolio strategies for both venture capital firms and companies interested in in-licensing, partnering or acquisition of new compounds/technologies or companies. Consultant on various projects at laboratories in department of vascular surgery at Stanford.

EXELIXIS, SOUTH SAN FRANCISCO, CA 2004-2010
VICE PRESIDENT
MOLECULAR AND CELLULAR PHARMACOLOGY

Biotechnology company focused on the discovery and development of small molecular therapeutics for the treatment of oncology and metabolic disease. Reported to the Executive Vice President of Research and Chief Scientific officer.

- Leader of interdisciplinary teams at all stages of preclinical to early clinical development. Strong track record with increasing responsibility, promoted from Senior Director to Executive Director (2007) and to Vice President (2009). Managed a department of 82 scientists (30 Ph.Ds) with 6 direct reports (Senior Director, 4 Directors, and 1 Administrative Assistant). Prepared and managed multi-million dollar budgets, set priorities and managed costs while remaining extremely productive.
- Led the divisions that were responsible for different roles in drug discovery including target identification and validation, robotic cell culture, cell line acquisition and banking, cell based mechanistic and phenotypic assays and pharmacodynamic studies, and translational medicine.
- Led the biomarker group (~10 PhDs/RAs) responsible for identification, validation and assay of clinical biomarkers to support ongoing clinical trials (Phase I and Phase II). Developed and implemented a number of novel biomarker studies that enabled identification of pharmacodynamics activity for drugs in early clinical development.
- Responsible for the all cell biology and pharmacodynamic sections of multiple INDS: XL228 (IGF1R/Bcr-Abl), XL281 (RAF), XL765 (PI3K/MTOR), XL147 (PI3K), XL888 (HSP90), XL139 (hedgehog), XL019 (JAK2), XL518 (MEK), XL418 (AKT), XL388 (TORC1/TORC2), XL413 (CDC7), XL541(S1P1R), XL499 (PI3K γ).
- Supervised and led research team leaders in early target validation, lead validation and lead optimization for both oncology and inflammation/autoimmune disease indications around various molecular target classes including protein and lipid kinases, sphingomyelinase, ceramide synthase, methyltransferase, dehydrogenase, ATPase, and GPCRs.
- Member of the Research and Development Management Committee with responsibility for key strategic decisions.
- Provided project updates and strategic evaluations to senior management (CSO, CEO, President) and board of directors.
- Spearheaded the implementation of the "Post-Development Compound" characterization teams that further characterized mechanism of action, combination studies, tumor cell line profiling, and other studies used to assist the clinical project teams in patient stratification strategies for XL compounds. These studies were also instrumental in Exelixis partnering and business development activities.
- Recruited numerous scientists and research associates to build up key areas of expertise in molecular and cellular pharmacology
- Built a world class repository of cancer cell lines integrated with gene expression, protein expression and phosphorylation, and associated sequencing data (mutations, amplifications, translocations). Implemented the utilization of these cell lines and associated data to profile development compounds and identify potential sensitive tumor types.
- Brought in multiple bone marrow and primary cell/tumor specimens to evaluate effects of our DC compounds on stem cell properties. Used these and established cell lines and tissue samples to identify and validate biomarkers for Phase I and II clinical trials.
- Co-authored with colleague David Matthews, "Targeting Protein Kinases for Cancer Therapy" (Wiley Press, 2010), a comprehensive, 700+ page book that featured an overview of protein kinases, their structure and function, and the drugs that inhibit them.

FRAZIER HEALTH CARE VENTURES, PALO ALTO, CA 2003-2004

CONSULTANT

One of the leading providers of venture and growth equity capital to emerging biopharma, medical device and healthcare service companies. As a consultant, involved in the founding of Macusight, an angiogenesis company focused on age-related macular degeneration and diabetic macular edema.

- Established collaborations and agreements with academic and contract labs to move product forward into IND stage.
- Made key scientific presentations to venture firms to enable first round financing.
- Key inventor on IP that enabled the funding and founding of the company.

MILLENNIUM PHARMACEUTICALS, SOUTH SAN FRANCISCO, CA 2002-2003

SENIOR DIRECTOR VASCULAR BIOLOGY

Formerly COR Therapeutics, Millennium South San Francisco was focused on cardiovascular disease, with two major areas of therapeutic focus: platelet biology and atherosclerosis.

- Developed strategic plan for vascular biology at Millennium.
- Supervised project leaders on three small molecule discovery programs (Targets: GPCR, Growth Factor Receptor, Transcription Factor) at different stages-hit to lead, lead optimization and high throughput screening.
- Supervised multiple functional groups-vascular biology, functional genomics and histology core.
- Initiated collaborations with academic laboratories (to bring in human tissue specimens and timed specimens from animal models of vascular disease) to enable genomic screens in key therapeutic areas.
- Supervised vascular biology target discovery group, responsible for identification of screening targets for Millennium partners (large Pharma companies)
- Presentations to senior management.

GENENTECH SOUTH SAN FRANCISCO, CA 1997-2001

SENIOR SCIENTIST/ASSOCIATE DIRECTOR DEPARTMENT OF CARDIOVASCULAR RESEARCH

One of the founders of the biotechnology industry, Genentech has been delivering on the promise of biotechnology for more than 30 years. Known throughout the industry as a company using human genetic information to discover, develop, manufacture and commercialize medicines to treat patients with serious or life-threatening medical conditions.

- Coordinated screening efforts of several groups in vascular biology related to endothelial biology for identification of new activities for novel secreted proteins and transmembrane proteins in the areas of angiogenesis and atherosclerosis.
- Senior investigator in angiogenesis research, identifying novel targets for protein based therapeutics.
- Used genomics, protein analysis, tissue microarrays, gene-calling, in situ hybridization and other cutting edge techniques to identify and validate targets.

- Recruited and supervised research associates, post-doctoral fellows, summer interns, visiting scientists and a senior scientist.
- Presentations to senior management and board of directors.
- Filed multiple patent applications (over 1000, with over 40 now issued) and published a number of highly cited articles in the field of angiogenesis.

**HARVARD MEDICAL SCHOOL/BRIGHAM AND WOMEN'S HOSPITAL. 1996
VISITING SCIENTIST
DEPARTMENT OF PATHOLOGY, VASCULAR RESEARCH DIVISION**

Training in molecular pathology, cloning, expression, and gene promoter analysis. First author or senior author of several highly cited publications arising from the sabbatical. Participated in medical grand rounds, and pathology resident training.

**BAYER PHARMACEUTICALS (FORMERLY MILES PHARMACEUTICALS), WEST HAVEN CT 1990-1997
PRINCIPAL STAFF SCIENTIST AND GROUP LEADER
INSTITUTE FOR INFLAMMATION AND AUTOIMMUNITY**

North American site for large pharma company specializing in small molecule drug discovery in the areas of oncology, osteoporosis, osteoarthritis, metabolic disease and autoimmunity/inflammation.

- Led screening efforts for small molecule inhibitors of leukocyte adhesion, cyclo-oxygenase, and cytokine release/action.
- Therapeutic thought leader for inflammation/autoimmunity and responsible for development of strategic inflammatory and autoimmune disease research plan and competitive assessment.
- Played a key role in establishing academic and industrial collaborations/contracts for tissue acquisition of synovial fluid, synovial membranes, cartilage and related tissues from RA and OA patients for target discovery and assay development.
- Developed collaborations with leading laboratories in leukocyte adhesion/recruitment
- First to develop methods to isolate and culture human synovial microvessel endothelial cells and use them in drug screens to identify potential compounds for drug development.
- Identified first inhibitor of NF-KB induced gene expression. Drug was later shown to be a specific and irreversible inhibitor of the inflammasome
- Presentations and project updates to senior management in US and Germany.
- Supervised 6 laboratories (6 Ph.D. scientists and 18-25 research associates and post-doctoral fellows).

**NEW YORK MEDICAL COLLEGE, VALHALLA NY 1980-1989
ASSOCIATE PROFESSOR OF PHYSIOLOGY**

A large private health university with a school of medicine, school of health sciences and a graduate school of basic medical sciences. As a member of the faculty of the department of physiology, responsible for teaching endocrinology and cardiovascular physiology to medical students and graduate students.

- Established research program in endothelial biology, receiving grant support from NIH, AHA and other state and national funding agencies. Research area focus on endothelial biology, eicosanoid biochemistry, and cellular models of endothelial dysfunction with relevance to inflammation, atherosclerosis, hypertension, ophthalmology and diabetes.
- One of the first laboratories to develop methodology to isolate and culture endothelial cells from the microvasculature of animal and human tissues (lung, heart, brain, muscle, retina), and to demonstrate that “all endothelial cells are not created equal”.
- Supervised graduate students, post-doctoral fellows visiting scientists and summer medical student interns.
- Developed methods for the analysis of intraocular fluids and first to demonstrate the presence interleukin 6 and other cytokines in samples from patients with proliferative vitreoretinopathy and diabetic renal disease
- In collaboration with investigators at Boehringer Ingelheim, developed a primate model of asthma, now used by many pharmaceutical companies for screening

Education

Bachelor of Science. Honors major in Zoology, graduating summa cum laude. **University of Calgary** 1975

Ph.D. Endocrinology and Pharmacology **University of Calgary** 1978

Post-doctoral studies in Pharmacology **University of California, San Diego**. 1978-1980

Visiting Scientist, **Harvard Medical School, and Brigham and Women’s Hospital**, Department of Pathology. 1996

Advanced Course in Immunology, **Stanford Medical School and the American Association of Immunology**. 2002

Publications and Patents

Over 100 publications in peer reviewed journals, numerous book chapters and three full length books. Over 1000 patent applications with 49 issued patents.

Awards and Honors

- Province of Alberta Graduate Scholar 1976
- Medical Research Council Studentship 1976-1978
- Isaac Walton Killam Scholar and Merit Award 1977,1978
- Medical Research Council Fellow 1978-1980
- Alexander and Alexandrine Sinsheimer Scholar 1981, 1982
- Pharmacia Young Investigator Award, Microcirculatory Society 1983
- Mary Weideman Award, Microcirculatory Society 1984
- NIH Research Career Development Award 1987-1992
- Miles Science Award 1992
- Kurt Weiderhelm Award, Microcirculatory Society 1998

- Award named after me (Gerritsen Award), awarded annually by the Microcirculatory Society
- Recipient of 2010 PROSE award for the best book in Biosciences and Neurosciences (Awarded to Targeting Protein Kinases for Cancer Therapy, D.J. Matthews and M. E Gerritsen, 2010. Wiley Press)

Related Professional Activities

- Co-organizer, Keystone Conferences (Oxidant Stress, Angiogenesis)
- Program Committees: International Microcirculatory Meeting, International Vascular Biology Meetings, Blood Vessel Club, AHA angiogenesis meetings, ATVB meetings, NAVBO meetings
- NIH Study Section Member: Pathology A 1993-2000
- Study Section Member, NIH SCOR and PPG grants on hypertension, oncology, angiogenesis, atherosclerosis
- External Scientific Advisory Committee, Institute for Medicine and Engineering, University of Pennsylvania
- Editorial Boards: Microcirculation, Microvascular Research, Atherosclerosis, Thrombosis and Vascular Biology, Journal of Cardiovascular Pathobiology
- One of the founders, President, Vice-President, Board of Directors (various times), Newsletter editor, Development Committee, North American Vascular Biology Organization (NAVBO)
- Council, Microcirculatory Society
- Founding Editor and Editor in Chief, Microcirculation, the official journal of the Microcirculatory Society
- Consultant on various academic program projects, RO1 grants, SCOR grants (fields: vascular biology, angiogenesis, prostanoids, endothelial cell biology, aortic aneurysm); also consultant (at various times) to biotech and pharma companies ranging in size from 3 to over 1000 employees.

Grants from the NIH, American Heart Association, Fight for Sight etc

National Institutes of Health

1981-1984	NIH New Investigator Award "Cerebral Microvessels "
1985-1988	NIH HLBI RO1 Grant "Glucocorticoids and Microvessel Endothelium"
1985-1988	NIH EI RO1 Grant "Retinal Endothelial Cells"
1986-1989	Research Career Development Award
1990-1996	NIH HLBI RO1 grant "Glucocorticoids and Microvessel Endothelium"

Other Agencies

1981-1984	American Heart Association Grant-in-Aid "Isolation and Characterization of Endothelial Cells from Cardiac Muscle"
1984	American Diabetes Association Grant-in-Aid "Effects of High Glucose on Retinal Microvascular Endothelial Cells"
1984-1986	Westchester Heart Association Grant-in-Aid " Effects of High Glucose on Cardiac Muscle Microvessel Endothelial Cells"
1984-1985	New York State Health Research Council Grant-in-Aid "Eicosanoid Metabolism in Cardiac Muscle Microvessel Endothelium"
1986	Boehringer Ingelheim Grant-In-Aid "Isolation of a Leukocyte Regulatory Factor from Microvessel Endothelium"
1990	Miles Inc. Grant in Aid. Fellowship support for Robert Mannix
1989	Fight for Sight Fellowship (sponsor for Julio Rimarachin)
1989	New York Eye and Ear Fellowship (sponsor for Julio Rimarachin)

Selected Articles

- Xu B, Ida Y, Glover KJ, Ge Y, Wang Y, Xuan H, Hu X, Tanaka H, Wang W, Fujimura N, Miyata M, Shoji T, Gua J, Zheng X, Gerritsen M, Kuo C, Michie S, and Dalman RL. (2019) Inhibition of VEGF (Vascular Endothelial Growth Factor)-A or its receptor activity suppresses experimental aneurysm progression in the aortic elastase infusion model. *Arteriosclerosis Thrombosis and Vascular Biology* 39: 1652-1666.
- Nairismägi, M-L, Gerritsen, ME, Li ZM, Wijaya JC, Chia, BKH, Lim JQ, Laurensia Y, Burton, Yeoh KW, Yao XS, Pang WL, Bisconte A, Hill RJ, Bradshaw JM, Song TLL, Huang D, Ng CCY, Rajasegaran V, Tan QQ, Lim ST, Teh BT, Ong CK and Tan J. (2018) Oncogenic Activation of JAK3-STAT Signaling Confers Clinical Sensitivity to PRN371, a Novel Selective and Potent JAK3 Inhibitor, in Natural Killer/T-cell Lymphoma. *Leukemia* 32: 1147-1156.
- Venetsanakos E, Brameld, K, Phan, VT, Verner E, Owens TD, Xing Y, Tam D, LaStant, J, Leung K, Karr DE, Hill R, Gerritsen ME, Goldstein DM, Funk JO, and Bradshaw MJ. (2017) The Irreversible Covalent Fibroblast Growth Factor Receptor Inhibitor PRN1371 Exhibits Sustained Inhibition of FGFR after Drug Clearance. *Molecular Cancer Therapeutics* 16: 2668-2676.
- Bramfeld, KA, Owens TD, Verner, E Venesanakos, E, Bradshaw JM, Phan VT, Tam D, Leung K, Shu J, LaStant J, Loughhead DG, Ton T, Karr DE, Gerritsen ME, Goldstein DM and Funk JO. Discovery of the irreversible covalent FGFR inhibitor 8-(3-(4-acryloylpiperazine-1-yl)propyl)-6-(2,6-dichloro-3,5-dimethoxyphenyl)-2-(methlamino)pyrido [2,3-d]pyrimidin-7(8H)-one (PRN1371) for the treatment of solid tumors. *J Med Chem* 60:6516-6527, 2017.
- Venetsanakos E, Bradshaw JM, Goldstein DM, Leung K, Karr D, Gerritsen ME, Xing Y, LaStant J, Nunn PA, Shu J, Bommireddi A, Gourlay SG, Funk JO, Brameld KA. (2016) PRN1371, an irreversible, covalent inhibitor of FGFR1, 2, 3 and 4 is highly efficacious in preclinical tumor models. *Presented at American Association for Cancer Research Annual Meeting, New Orleans, LA, April 2016*
- Phan VT, Verner E, Gerritsen M, Bradshaw JM, Goldstein DM, Hill RJ, Karr D, LaStant J, Nunn P, Tam D, Shu J, Funk JO, Brameld KA. (2014) Irreversible covalent pan-FGFR Inhibitors are highly efficacious against FGFR-dependent cancers. *Presented at EORTC-NCI-AACR 2014, Barcelona, November 18-21.*
- Bradshaw, JM, McFarland, JM, Paavilainen, VO, Bisconte, A., Tam, D., Phan, VT, Romanov, S, Finkle, D, Shu, J, Patel, V, Ton, T, Li, X, Loughhead, DG, Nunn, PA, Karr, DE, Gerritsen, ME, Funk, JO, Owens, TD, Verner, E, Brameld, KA, Hill, RJ, Goldstein, DM and Taunton, J. (2015) Prolonged and tunable residence time using reversible covalent kinase inhibitors. *Nature Chemical Biology* 11.7 525-531
- Rouer, M, Xu, BH, Xuan, HJ, Tanaka, H, Fujimura, N, Glover, KJ, Furusho, Y, Gerritsen, M and Dalman, RL. (2014) Rapamycin limits the growth of established experimental abdominal aortic aneurysms. *Eur J Vasc Endovasc Surg* 47:493-500
- Phan, VT, Verner, E, Gerritsen, M, Bradshaw, JM, Goldstein, DM, Hill, RJ, Karr, D, LaStant, J, Nunn, P, Tam, D, Shu, J, Funk, JO and Brameld, KA. (2014) Irreversible covalent pan-FGF inhibitors are highly efficacious against FGFR-dependent cancer. *EORTC Abstr* 483
- Xu, B, Fujiyama, N, Glover, K, Xuan, H, Furusho, Y, Tanaka, H, Gerritsen, M and Dalman, R. (2014). Myeloid cell-specific VEGF-A deletion inhibits experimental abdominal aortic aneurysms. *Arteriosclerosis, Thrombosis and Vascular Biology* 34:A305

- Glover, KJ, Xu, B, Iida, Y, Xuan, H, Tanaka, H, Wang, W, Fujimura, N, Gerritsen, M and Dalman, RL. (2013). VEGF-A neutralization suppresses experimental abdominal aortic aneurysm (AAA) formation. *J Vasc Surgery* 57:S p84S
- Wang, W., Xu, B, Xuan, H, Tanaka, H., Rouer, M, Glover, KJ, Fujimura, N, Hu, X, Gerritsen, M, Michie, SA and Dalman, RL.(2013) Inhibition of hypoxia inducible factor (HIF)-1a suppresses formation and progression of experimental abdominal aortic aneurysms (AAAs). *J Vasc Surgery* 57:S p83S-84S
- Iida, Y, Xu, B, Hu, X, Chow, V, Yuan, R., Gerritsen, M, Ogino, H and Dalman, RL. (2012). Angiogenesis inhibitor sunitinib suppresses the formation and progression of experimental abdominal aortic aneurysm. *J Vasc Surgery*, Vascular Annual Meeting, PS216.
- Xu, B., Iida, Y, Hu, X, Xuan, H, Gerritsen, M. and Dalman, RL. (2012) Model-dependent influence of prior splenectomy on experimental abdominal aortic aneurysm progression. *Arteriosclerosis, Thrombosis and Vascular Biology* 32:A102, 2012
- Lyman, SK, Suzanne Crawley, S Gong, R, Adamkewicz, J, McGrath, G, Chew, J, Choi, J Holst, C, Goon, L, Detmer, S, Vaclavikova, J, Gerritsen, ME and Blake, RA High-content, high-throughput analysis of cell cycle perturbations induced by the HSP90 inhibitor XL888 *Plos one* 6:e17692, 2011
- Kim DD, Kleinman DM, Kanetaka T, Gerritsen ME, Nivaggioli T, Weber D, Duran WN. (2010) Rapamycin Inhibits VEGF-Induced Microvascular Hyperpermeability In Vivo. *Microcirculation* 17:128-136
- Trowe T, Boukouvala S, Calkins K, Cutler RE, Jr., Fong R, Funke R, Gendreau SB, Kim YD, Miller N, Woolfrey JR, Vysotskaia V, Yang JP, Gerritsen ME, Matthews DJ, Lamb P, Heuer TS. (2008) EXEL-7647 inhibits mutant forms of ErbB2 associated with lapatinib resistance and neoplastic transformation. *Clin Cancer Res* 14:2465-2475
- Gerritsen ME. (2005a) HGF and VEGF: a dynamic duo. *Circ Res* 96:272-273
- Gerritsen ME, Wagner GF. (2005) Stanniocalcin: no longer just a fish tale. *Vitam Horm* 70:105-135
- Gerritsen ME. (2005b) Genetic variations in vascular endothelial growth factor and endothelial nitric oxide synthase and their contributions to human disease. *Microcirculation* 12:129-140
- Shin HY, Schwartz EA, Bizios R, Gerritsen ME. (2004) Receptor-mediated basic fibroblast growth factor signaling regulates cyclic pressure-induced human endothelial cell proliferation. *Endothelium* 11:285-291
- Zlot C, Ingle G, Hongo J, Yang S, Sheng Z, Schwall R, Paoni N, Wang F, Peale FV, Jr., Gerritsen ME. (2003) Stanniocalcin 1 is an autocrine modulator of endothelial angiogenic responses to hepatocyte growth factor. *J Biol Chem* 278:47654-47659
- Yang RB, Ng CK, Wasserman SM, Komuves LG, Gerritsen ME, Topper JN. (2003) A novel interleukin-17 receptor-like protein identified in human umbilical vein endothelial cells antagonizes basic fibroblast growth factor-induced signaling. *J Biol Chem* 278:33232-33238
- Shin HY, Bizios R, Gerritsen ME. (2003) Cyclic pressure modulates endothelial barrier function. *Endothelium* 10:179-187
- Gerritsen ME, Soriano R, Yang S, Zlot C, Ingle G, Toy K, Williams PM. (2003a) Branching out: a molecular fingerprint of endothelial differentiation into tube-like structures generated by Affymetrix oligonucleotide arrays. *Microcirculation* 10:63-81

- Gerritsen ME, Tomlinson JE, Zlot C, Ziman M, Hwang S. (2003b) Using gene expression profiling to identify the molecular basis of the synergistic actions of hepatocyte growth factor and vascular endothelial growth factor in human endothelial cells. *Br J Pharmacol* 140:595-610
- Egginton S, Gerritsen M. (2003) Lumen formation: in vivo versus in vitro observations. *Microcirculation* 10:45-61
- Yang S, Toy K, Ingle G, Zlot C, Williams PM, Fuh G, Li B, de Vos A, Gerritsen ME. (2002) Vascular endothelial growth factor-induced genes in human umbilical vein endothelial cells: relative roles of KDR and Flt-1 receptors. *Arterioscler Thromb Vasc Biol* 22:1797-1803
- Shin HY, Gerritsen ME, Bizios R. (2002a) Regulation of endothelial cell proliferation and apoptosis by cyclic pressure. *Ann Biomed Eng* 30:297-304
- Shin HY, Smith ML, Toy KJ, Williams PM, Bizios R, Gerritsen ME. (2002b) VEGF-C mediates cyclic pressure-induced endothelial cell proliferation. *Physiol Genomics* 11:245-251
- Paoni NF, Peale F, Wang F, Errett-Baroncini C, Steinmetz H, Toy K, Bai W, Williams PM, Bunting S, Gerritsen ME, Powell-Braxton L. (2002) Time course of skeletal muscle repair and gene expression following acute hind limb ischemia in mice. *Physiol Genomics* 11:263-272
- Kiosses WB, Hood J, Yang S, Gerritsen ME, Cheresh DA, Alderson N, Schwartz MA. (2002) A dominant-negative p65 PAK peptide inhibits angiogenesis. *Circ Res* 90:697-702
- Gerritsen ME, Peale FV, Jr., Wu T. (2002a) Gene expression profiling in silico: relative expression of candidate angiogenesis associated genes in renal cell carcinomas. *Exp Nephrol* 10:114-119
- Gerritsen ME, Soriano R, Yang S, Ingle G, Zlot C, Toy K, Winer J, Draksharapu A, Peale F, Wu TD, Williams PM. (2002b) In silico data filtering to identify new angiogenesis targets from a large in vitro gene profiling data set. *Physiol Genomics* 10:13-20
- Filvaroff EH, Guillet S, Zlot C, Bao M, Ingle G, Steinmetz H, Hoeffel J, Bunting S, Ross J, Carano RA, Powell-Braxton L, Wagner GF, Eckert R, Gerritsen ME, French DM. (2002) Stanniocalcin 1 alters muscle and bone structure and function in transgenic mice. *Endocrinology* 143:3681-3690
- Chan-Ling T, Gerritsen ME, Hill CE, Kubes P, Perry M. (2002) Microcirculation down under. *Trends Pharmacol Sci* 23:106-108
- Yang S, Xin X, Zlot C, Ingle G, Fuh G, Li B, Moffat B, de Vos AM, Gerritsen ME. (2001) Vascular endothelial cell growth factor-driven endothelial tube formation is mediated by vascular endothelial cell growth factor receptor-2, a kinase insert domain-containing receptor. *Arterioscler Thromb Vasc Biol* 21:1934-1940
- Xin X, Yang S, Ingle G, Zlot C, Rangell L, Kowalski J, Schwall R, Ferrara N, Gerritsen ME. (2001) Hepatocyte growth factor enhances vascular endothelial growth factor-induced angiogenesis in vitro and in vivo. *Am J Pathol* 158:1111-1120
- Peale FV, Jr., Gerritsen ME. (2001) Gene profiling techniques and their application in angiogenesis and vascular development. *J Pathol* 195:7-19
- Langley RR, Carlisle R, Ma L, Specian RD, Gerritsen ME, Granger DN. (2001) Endothelial expression of vascular cell adhesion molecule-1 correlates with metastatic pattern in spontaneous melanoma. *Microcirculation* 8:335-345
- Gerritsen ME. (2001) Angiogenesis and chronic disease. 24-29 April 2001. *Trends Mol Med* 7:333-334

- Li B, Fuh G, Meng G, Xin X, Gerritsen ME, Cunningham B, de Vos AM. (2000) Receptor-selective variants of human vascular endothelial growth factor. Generation and characterization. *J Biol Chem* 275:29823-29828
- Kahn J, Mehraban F, Ingle G, Xin X, Bryant JE, Vehar G, Schoenfeld J, Grimaldi CJ, Peale F, Draksharapu A, Lewin DA, Gerritsen ME. (2000) Gene expression profiling in an in vitro model of angiogenesis. *Am J Pathol* 156:1887-1900
- Yang S, Graham J, Kahn JW, Schwartz EA, Gerritsen ME. (1999) Functional roles for PECAM-1 (CD31) and VE-cadherin (CD144) in tube assembly and lumen formation in three-dimensional collagen gels. *Am J Pathol* 155:887-895
- Xin X, Yang S, Kowalski J, Gerritsen ME. (1999) Peroxisome proliferator-activated receptor gamma ligands are potent inhibitors of angiogenesis in vitro and in vivo. *J Biol Chem* 274:9116-9121
- Schwartz EA, Bizios R, Medow MS, Gerritsen ME. (1999) Exposure of human vascular endothelial cells to sustained hydrostatic pressure stimulates proliferation. Involvement of the α V integrins. *Circ Res* 84:315-322
- Mori N, Horie Y, Gerritsen ME, Anderson DC, Granger DN. (1999a) Anti-inflammatory drugs and endothelial cell adhesion molecule expression in murine vascular beds. *Gut* 44:186-195
- Mori N, Horie Y, Gerritsen ME, Granger DN. (1999b) Ischemia-reperfusion induced microvascular responses in LDL-receptor $-/-$ mice. *Am J Physiol* 276:H1647-1654
- Langley RR, Russell J, Eppihimer MJ, Alexander SJ, Gerritsen M, Specian RD, Granger DN. (1999) Quantification of murine endothelial cell adhesion molecules in solid tumors. *Am J Physiol* 277:H1156-1166
- Eppihimer MJ, Russell J, Langley R, Gerritsen M, Granger DN. (1999) Role of tumor necrosis factor and interferon gamma in endotoxin-induced E-selectin expression. *Shock* 11:93-97
- Carley W, Ligon G, Phan S, Dziuba J, Kelley K, Perry C, Gerritsen ME. (1999) Distinct ICAM-1 forms and expression pathways in synovial microvascular endothelial cells. *Cell Mol Biol (Noisy-le-grand)* 45:79-88
- Sheppard KA, Phelps KM, Williams AJ, Thanos D, Glass CK, Rosenfeld MG, Gerritsen ME, Collins T. (1998) Nuclear integration of glucocorticoid receptor and nuclear factor-kappaB signaling by CREB-binding protein and steroid receptor coactivator-1. *J Biol Chem* 273:29291-29294
- Gerritsen ME, Shen CP, Perry CA. (1998) Synovial fibroblasts and the sphingomyelinase pathway: sphingomyelin turnover and ceramide generation are not signaling mechanisms for the actions of tumor necrosis factor- α . *Am J Pathol* 152:505-512
- Gerritsen ME. (1998a) Benjamin W. Zweifach 1911-1997. *Microcirculation* 5:3-4
- Gerritsen ME. (1998b) Flavonoids: inhibitors of cytokine induced gene expression. *Adv Exp Med Biol* 439:183-190
- Pierce JW, Schoenleber R, Jesmok G, Best J, Moore SA, Collins T, Gerritsen ME. (1997) Novel inhibitors of cytokine-induced IkappaB α phosphorylation and endothelial cell adhesion molecule expression show anti-inflammatory effects in vivo. *J Biol Chem* 272:21096-21103
- Komatsu S, Flores S, Gerritsen ME, Anderson DC, Granger DN. (1997) Differential up-regulation of circulating soluble and endothelial cell intercellular adhesion molecule-1 in mice. *Am J Pathol* 151:205-214

- Hoyt DG, Rizzo M, Gerritsen ME, Pitt BR, Lazo JS. (1997) Integrin activation protects pulmonary endothelial cells from the genotoxic effects of bleomycin. *Am J Physiol* 273:L612-617
- Horie Y, Chervenak RP, Wolf R, Gerritsen ME, Anderson DC, Komatsu S, Granger DN. (1997) Lymphocytes mediate TNF-alpha-induced endothelial cell adhesion molecule expression: studies on SCID and RAG-1 mutant mice. *J Immunol* 159:5053-5062
- Henninger DD, Panes J, Eppihimer M, Russell J, Gerritsen M, Anderson DC, Granger DN. (1997a) Cytokine-induced VCAM-1 and ICAM-1 expression in different organs of the mouse. *J Immunol* 158:1825-1832
- Henninger DD, Gerritsen ME, Granger DN. (1997b) Low-density lipoprotein receptor knockout mice exhibit exaggerated microvascular responses to inflammatory stimuli. *Circ Res* 81:274-281
- Gerritsen ME, Williams AJ, Neish AS, Moore S, Shi Y, Collins T. (1997) CREB-binding protein/p300 are transcriptional coactivators of p65. *Proc Natl Acad Sci U S A* 94:2927-2932
- Allport JR, Ding H, Collins T, Gerritsen ME, Luscinskas FW. (1997) Endothelial-dependent mechanisms regulate leukocyte transmigration: a process involving the proteasome and disruption of the vascular endothelial-cadherin complex at endothelial cell-to-cell junctions. *J Exp Med* 186:517-527
- Stoltz RA, Connors MS, Gerritsen ME, Abraham NG, Laniado-Schwartzman M. (1996) Direct stimulation of limbal microvessel endothelial cell proliferation and capillary formation in vitro by a corneal-derived eicosanoid. *Am J Pathol* 148:129-139
- Read MA, Neish AS, Gerritsen ME, Collins T. (1996) Postinduction transcriptional repression of E-selectin and vascular cell adhesion molecule-1. *J Immunol* 157:3472-3479
- Panes J, Gerritsen ME, Anderson DC, Miyasaka M, Granger DN. (1996) Apigenin inhibits tumor necrosis factor-induced intercellular adhesion molecule-1 upregulation in vivo. *Microcirculation* 3:279-286
- Luscinskas FW, Ding H, Tan P, Cumming D, Tedder TF, Gerritsen ME. (1996) L- and P-selectins, but not CD49d (VLA-4) integrins, mediate monocyte initial attachment to TNF-alpha-activated vascular endothelium under flow in vitro. *J Immunol* 157:326-335
- Hoyt DG, Mannix RJ, Gerritsen ME, Watkins SC, Lazo JS, Pitt BR. (1996) Integrins inhibit LPS-induced DNA strand breakage in cultured lung endothelial cells. *Am J Physiol* 270:L689-694
- Gundel R, Lindell D, Harris P, Fournel M, Jesmok G, Gerritsen ME. (1996) IL-4 induced leucocyte trafficking in cynomolgus monkeys: correlation with expression of adhesion molecules and chemokine generation. *Clin Exp Allergy* 26:719-729
- Gerritsen ME, Shen CP, Atkinson WJ, Padgett RC, Gimbrone MA, Jr., Milstone DS. (1996) Microvascular endothelial cells from E-selectin-deficient mice form tubes in vitro. *Lab Invest* 75:175-184
- Gerritsen ME. (1996) Physiological and pathophysiological roles of eicosanoids in the microcirculation. *Cardiovasc Res* 32:720-732
- Carley WW, Szczepanski A, Gerritsen ME. (1996) Cytokeratin expression and hyaluronic acid production in cultures of human synovial microvascular endothelial cells: influence of cytokines and growth factors. *Microcirculation* 3:359-370
- Barkalow FJ, Goodman MJ, Gerritsen ME, Mayadas TN. (1996) Brain endothelium lack one of two pathways of P-selectin-mediated neutrophil adhesion. *Blood* 88:4585-4593

- Kalfa TA, Gerritsen ME, Carlson EC, Binstock AJ, Tsilibary EC. (1995) Altered proliferation of retinal microvascular cells on glycated matrix. *Invest Ophthalmol Vis Sci* 36:2358-2367
- Gerritsen ME, Shen CP, McHugh MC, Atkinson WJ, Kiely JM, Milstone DS, Luscinskas FW, Gimbrone MA, Jr. (1995a) Activation-dependent isolation and culture of murine pulmonary microvascular endothelium. *Microcirculation* 2:151-163
- Gerritsen ME, Carley WW, Ranges GE, Shen CP, Phan SA, Ligon GF, Perry CA. (1995b) Flavonoids inhibit cytokine-induced endothelial cell adhesion protein gene expression. *Am J Pathol* 147:278-292
- Abraham NG, Lavrovsky Y, Schwartzman ML, Stoltz RA, Levere RD, Gerritsen ME, Shibahara S, Kappas A. (1995) Transfection of the human heme oxygenase gene into rabbit coronary microvessel endothelial cells: protective effect against heme and hemoglobin toxicity. *Proc Natl Acad Sci U S A* 92:6798-6802
- Szczepanski A, Moatter T, Carley WW, Gerritsen ME. (1994) Induction of cyclooxygenase II in human synovial microvessel endothelial cells by interleukin-1. Inhibition by glucocorticoids. *Arthritis Rheum* 37:495-503
- Moatter T, Gerritsen ME. (1994) Acidic fibroblast factor induction of cyclooxygenase II in rabbit cardiac muscle microvessel endothelial cells: mediation by protein kinase C. *Microcirculation* 1:79-88
- Kauffmann DJ, van Meurs JC, Mertens DA, Peperkamp E, Master C, Gerritsen ME. (1994) Cytokines in vitreous humor: interleukin-6 is elevated in proliferative vitreoretinopathy. *Invest Ophthalmol Vis Sci* 35:900-906
- Brown Z, Gerritsen ME, Carley WW, Strieter RM, Kunkel SL, Westwick J. (1994) Chemokine gene expression and secretion by cytokine-activated human microvascular endothelial cells. Differential regulation of monocyte chemoattractant protein-1 and interleukin-8 in response to interferon-gamma. *Am J Pathol* 145:913-921
- Nishida M, Carley WW, Gerritsen ME, Ellingsen O, Kelly RA, Smith TW. (1993) Isolation and characterization of human and rat cardiac microvascular endothelial cells. *Am J Physiol* 264:H639-652
- Mannix RJ, Moatter T, Kelley KA, Gerritsen ME. (1993) Cellular signaling responses mediated by a novel nucleotide receptor in rabbit microvessel endothelium. *Am J Physiol* 265:H675-680
- Gerritsen ME, Niedbala MJ, Szczepanski A, Carley WW. (1993a) Cytokine activation of human macro- and microvessel-derived endothelial cells. *Blood Cells* 19:325-339; discussion 340-322
- Gerritsen ME, Bloor CM. (1993) Endothelial cell gene expression in response to injury. *Faseb J* 7:523-532
- Gerritsen ME, Kelley KA, Ligon G, Perry CA, Shen CP, Szczepanski A, Carley WW. (1993c) Regulation of the expression of intercellular adhesion molecule 1 in cultured human endothelial cells derived from rheumatoid synovium. *Arthritis Rheum* 36:593-602
- Acevedo AD, Bowser SS, Gerritsen ME, Bizios R. (1993) Morphological and proliferative responses of endothelial cells to hydrostatic pressure: role of fibroblast growth factor. *J Cell Physiol* 157:603-614

- Moatter T, Gerritsen ME. (1992) Fibroblast growth factor upregulates PGG/H synthase in rabbit microvascular endothelial cells by a glucocorticoid independent mechanism. *J Cell Physiol* 151:571-578
- Gundel RH, Gerritsen ME, Wegner CD. (1992) Polymyxin B-induced bronchial neutrophilia does not alter airway responsiveness to methacholine in cynomolgus monkeys. *Clin Exp Allergy* 22:357-363
- Carley WW, Niedbala MJ, Gerritsen ME. (1992) Isolation, cultivation, and partial characterization of microvascular endothelium derived from human lung. *Am J Respir Cell Mol Biol* 7:620-630
- Masferrer JL, Rimarachin JA, Gerritsen ME, Falck JR, Yadagiri P, Dunn MW, Laniado-Schwartzman M. (1991) 12(R)-hydroxyeicosatrienoic acid, a potent chemotactic and angiogenic factor produced by the cornea. *Exp Eye Res* 52:417-424
- Koller A, Seyedi N, Gerritsen ME, Kaley G. (1991) EDRF released from microvascular endothelial cells dilates arterioles in vivo. *Am J Physiol* 261:H128-133
- Gerritsen ME, Schwarz SM, Medow MS. (1991a) Glucocorticoid-mediated alterations in fluidity of rabbit cardiac muscle microvessel endothelial cell membranes: influences on eicosanoid release. *Biochim Biophys Acta* 1065:63-68
- Partridge CA, Gerritsen ME. (1990) Dexamethasone increases the release of three 44 kD proteins immunologically related to plasminogen activator inhibitor-1 from human umbilical vein endothelial and rabbit coronary microvessel endothelial cells. *Thromb Res* 57:139-154
- Gundel RH, Gerritsen ME, Gleich GJ, Wegner CD. (1990) Repeated antigen inhalation results in a prolonged airway eosinophilia and airway hyperresponsiveness in primates. *J Appl Physiol* 68:779-786
- Gerritsen ME, Mannix RJ. (1990) G-proteins and phospholipase activation in endothelial cells. *Adv Exp Med Biol* 275:115-124
- Gerritsen ME, Perry CA. (1990) Regulation of eicosanoid synthesis in microvessel endothelium: glucocorticoids do not affect arachidonyl CoA synthetase activity. *Biochim Biophys Acta* 1045:174-179
- Capetandes A, Gerritsen ME. (1990) Simplified methods for consistent and selective culture of bovine retinal endothelial cells and pericytes. *Invest Ophthalmol Vis Sci* 31:1738-1744
- Partridge CA, Weinstein BI, Southren AL, Gerritsen ME. (1989) Dexamethasone induces specific proteins in human trabecular meshwork cells. *Invest Ophthalmol Vis Sci* 30:1843-1847
- Medow MS, Intrieri L, Moatter T, Gerritsen ME. (1989) Dexamethasone effects on microvascular endothelial cell lipid composition. *Am J Physiol* 257:C512-519
- Gundel RH, Gerritsen ME, Wegner CD. (1989) Antigen-coated sepharose beads induce airway eosinophilia and airway hyperresponsiveness in cynomolgus monkeys. *Am Rev Respir Dis* 140:629-633
- Gerritsen ME, Rimarachin J, Perry CA, Weinstein BI. (1989a) Arachidonic acid metabolism by cultured bovine corneal endothelial cells. *Invest Ophthalmol Vis Sci* 30:698-705
- Gerritsen ME, Perry CA, Moatter T, Cragoe EJ, Jr., Medow MS. (1989b) Agonist-specific role for Na⁺-H⁺ antiport in prostaglandin release from microvessel endothelium. *Am J Physiol* 256:C831-839

- Gerritsen ME, Burke TM, Allen LA. (1988) Glucose starvation is required for insulin stimulation of glucose uptake and metabolism in cultured microvascular endothelial cells. *Microvasc Res* 35:153-166
- Gerritsen ME. (1987a) Eicosanoid production by the coronary microvascular endothelium. *Fed Proc* 46:47-53
- Gerritsen ME, Nganele DM, Rodrigues AM. (1987) Calcium ionophore (A23187)- and arachidonic acid-stimulated prostaglandin release from microvascular endothelial cells: effects of calcium antagonists and calmodulin inhibitors. *J Pharmacol Exp Ther* 240:837-846
- Gerritsen ME. (1987b) Functional heterogeneity of vascular endothelial cells. *Biochem Pharmacol* 36:2701-2711
- Churchill L, Bausback HH, Gerritsen ME, Ward PE. (1987) Metabolism of opioid peptides by cerebral microvascular aminopeptidase M. *Biochim Biophys Acta* 923:35-41
- Belloni FL, Liang BC, Gerritsen ME. (1987) Effects of alkylxanthines and calcium antagonists on adenosine uptake by cultured rabbit coronary microvascular endothelium. *Pharmacology* 35:1-15
- Rosenbaum RM, Cheli CD, Gerritsen ME. (1986) Dexamethasone inhibits prostaglandin release from rabbit coronary microvessel endothelium. *Am J Physiol* 250:C970-977
- Gerritsen ME, Weinstein BI, Gordon GG, Southren AL. (1986) Prostaglandin synthesis and release from cultured human trabecular-meshwork cells and scleral fibroblasts. *Exp Eye Res* 43:1089-1102
- Allen LA, Gerritsen ME. (1986) Regulation of hexose transport in cultured bovine retinal microvessel endothelium by insulin. *Exp Eye Res* 43:679-686
- Myers TO, Messina EJ, Rodrigues AM, Gerritsen ME. (1985) Altered aortic and cremaster muscle prostaglandin synthesis in diabetic rats. *Am J Physiol* 249:E374-379
- Levine N, Gerritsen ME, Carbonaro C, Tarlin N. (1985) Effect of castration on prostaglandin-mediated changes in membrane potential and prostaglandin synthesis in guinea-pig seminal vesicle tissue. *J Reprod Fertil* 73:539-545
- Gerritsen ME, Burke TM. (1985) Insulin binding and effects of insulin on glucose uptake and metabolism in cultured rabbit coronary microvessel endothelium. *Proc Soc Exp Biol Med* 180:17-23
- Rodrigues AM, Gerritsen ME. (1984) Prostaglandin release from isolated rabbit cerebral cortex microvessels--comparison of 6-keto PGF₁ α and PGE₂ release from micro-vessels incubated in 100% O₂, room air and 95% N₂:5% CO₂. *Stroke* 15:717-722
- Gerritsen ME. (1983) PGD₂ formation in the vasculature: characteristics of rat tail vein prostaglandin endoperoxide-D isomerase. *Prostaglandins* 25:105-120
- Gerritsen ME, Cheli CD. (1983) Arachidonic acid and prostaglandin endoperoxide metabolism in isolated rabbit and coronary microvessels and isolated and cultivated coronary microvessel endothelial cells. *J Clin Invest* 72:1658-1671
- Gerritsen ME, Printz MP. (1981a) Prostaglandin D synthase in microvessels from the rat cerebral cortex. *Prostaglandins* 22:553-566
- Gerritsen ME, Printz MP. (1981b) Sites of prostaglandin synthesis in the bovine heart and isolated bovine coronary microvessels. *Circ Res* 49:1152-1163

- Gerritsen ME, Morgan DO, Parks TP, Printz MP, Lederis KP. (1981) A proposed role for prostaglandins in the modulation of the relaxation response to urotensin I in isolated rat arteries. *Prostaglandins* 22:873-892
- Gerritsen ME, Printz MP. (1980) Prostaglandin E2 synthesis in pigeon aorta: comparison of atherosclerosis-resistant (Show Racer) and atherosclerosis-prone (White Carneau) breeds. *Artery* 8:56-62
- Gerritsen ME, Parks TP, Printz MP. (1980) Prostaglandin endoperoxide metabolism by bovine cerebral microvessels. *Biochim Biophys Acta* 619:196-206
- Gerritsen ME, Lederis K. (1979a) Effects of urotensin I on the isolated rat tail artery. *Pharmacology* 18:72-79
- Gerritsen ME, Lederis K. (1979b) Urotensin I effects on intracellular content of cyclic AMP in the rat tail artery. *Eur J Pharmacol* 60:211-220
- Parks TP, Printz MP, Gerritsen ME, Lederis K. (1978) Prostaglandin production in the rat tail artery and vein. *Proc West Pharmacol Soc* 21:241-244
- Gerritsen ME, Lederis K. (1978) Effects of urotensin I on the isolated rat tail artery: possible mediation of the relaxation responses by cAMP. *Proc West Pharmacol Soc* 21:249-252
- Gerritsen ME, Mathison R, Lederis K. (1977) Urotensin I induced relaxation and intracellular cAMP content in the rat tail artery. *Proc West Pharmacol Soc* 20:133-137
- Gerritsen ME, Lederis K. (1976) Effects of urotensin I on isolated blood vessels. *Proc West Pharmacol Soc* 19:461-465

Full Length Books

- Matthews, D and Gerritsen, M.E. Targeting Protein Kinases for Cancer Therapy. Wiley Press 2010.

Selected Book Chapters

- Gerritsen, M.E., Weinstein, B.I. and Southren, A.L. Arachidonate metabolism and prostaglandin release from human trabecular meshwork cells. In: Prostaglandins, Leukotrienes and Lipoxins. J. Martin Bailey, Ed. Plenum Press 185-192, 1985.
- Gerritsen, M.E., Milici, A.J. and Carley, W.W. Microvascular endothelial cells: isolation, identification and culture. *Advances in Cell Culture* 6:35-37, 1988.
- Gerritsen, M.E. and Medow, M.S. A role for extracellular sodium in the regulation of microvascular endothelial prostaglandin production. In *Microcirculation, an update*. (Tsuchiya, M., Asano, M., Mishima, Y. and Oda, M. eds) 735-738, 1988.
- Gerritsen, M.E. and Mannix, R.J. G-proteins and phospholipase activation in endothelial cells. *Adv. Exp. Med. Biol. Phospholipase A2, role and function in Inflammation*. P.Y.K. Wong and E. Dennis, Eds. Vol 275: 115-124, 1990.
- Szczepanski, A., Carley, W.W., Marshall, P. Mullins, L., Rayan, G. and Gerritsen, M.E. Isolation and characterization of synovial endothelial cells from patients with rheumatoid arthritis. Eicosanoid production. In: *Advances in Rheumatology and Inflammation*. 2. Leukotrienes and the vascular

- phenomena of Inflammation related to rheumatoid arthritis. (EULAR, Babel). R. Muller Peddinghaus, ed 119-128, 1992.
- Capetandes, A. and Gerritsen, M.E. Heterogeneity in retinal microvascular endothelial cell growth control by pericytes. In *Biology of the Ocular Microcirculation* (Weinreb, R.N. and L.A. Wheeler, eds. Elsevier) 81-90, 1992.
- Kalfa, T.A. Gerritsen, M.E., Tsilibary, E.C. Altered proliferation of retinal microvascular cells in response to non-enzymatic glycosylated matrix proteins. In *Angiogenesis: Molecular Biology, Clinical Aspects*, M.E. Marangoudakis (ed). Plenum Publishing Company, London. pp 101-108.
- Gerritsen, M.E. Physiological Functions of Endothelium. Chapter 1 In *Vascular Medicine* (2 ed).(J Loscalzo, MA Creager and VJ Dzau eds. Little Brown and Company, Boston MA USA) pp 3-39.
- Silverman E.S., Gerritsen, M.E. and Collins T. Metabolic Functions of the Pulmonary Endothelium. Chapter 43 in *THE LUNG: Scientific Foundations* (Second Edition) RG Crystal, JB West, E Weibel and P Barnes ed . Lippincott-Raven, Philadelphia. pp 629-651
- Gerritsen, M.E... Therapeutic regulation of leukocyte adhesion molecule expression. . In: *Leukocyte recruitment, endothelial cell adhesion molecules and transcriptional control. Insights for drug discovery*. T Collins, Editor Kluwer Academic Publishers, Boston, 2000. pp 263-303.
- Gerritsen, M.E. Flavonoids: Inhibitors of cytokine induced gene expression. In: *Flavonoids in the Living System*, Adv Exp Med Biol.439. Mantey and Buslig eds. Plenum Press, New York, 1998. pp 183-190.
- Schwartz, EA, Bizios, R, and Gerritsen, M.E.. Effects of sustained hydrostatic pressure on the expression of endothelial cell-leukocyte adhesion molecules. In: *Pulmonary Edema*, Wier, EK and Reeves, JT (eds) Future Publishing Co., Armonk NY 1998. pp 195-203.
- Schwartz, EA, Bizios, R and Gerritsen, M.E.. Effects of hydrostatic pressure on endothelial cells. In: *Physical Forces and Vascular Cells*. PE. Lelkes, Editor. Harwood Academic Publishers Amsterdam 1999 pp275-290.
- Collins, TC and Gerritsen, M.E. Preface: transcriptional control of cell adhesion molecules. In: *Leukocyte recruitment, endothelial cell adhesion molecules and transcriptional control. Insights for drug discovery*. T Collins, Editor Kluwer Academic Publishers, Boston, 2000
- Parks, TP and Gerritsen, M.E. Regulation of Intercellular Adhesion Molecule (ICAM) Gene Expression. In: *Leukocyte recruitment, endothelial cell adhesion molecules and transcriptional control. Insights for drug discovery*. T Collins, Editor Kluwer Academic Publishers, Boston, 2000. pp 109-174.
- Gerritsen, ME. Endothelial Heterogeneity. In. *Encyclopedia of the Microvasculature* Academic Press, (in press, 2004)
- Gerritsen, ME, Hwang, S., Zlot, C, Tomlinson, J and Ziman, M. The use of genomics to map phenotypic heterogeneity of the endothelium. In. *Endothelial phenotypes in health and disease*. (W. Aird ed.). Taylor and Francis, Boca Raton, 2005 pp119-132.
- Gerritsen, ME . Angiogenesis. In: *Handbook of Physiology* (Ronald F. Tuma, Walter N. Duran and Klaus Ley, Eds) Academic Press, Amsterdam, 2008. pp351-384.
- Gerritsen, ME and Wagner, G. Stanniocalcin: No Longer Just a Fish Tale. In: *Vitamins and Hormones* (G. Litvack, ed.) Elsevier Press, San Diego. 2005 pp106-135.

Gerritsen, ME. Therapeutic Angiogenesis In: Encyclopedia of Molecular Cell Biology and Molecular Medicine. 2nd Edition ,Volume 14 (R.A. Meyers, ed) Wiley-VCH Verlag GmbH & Co. Weinheim. 2005, pp 286-321.

Gerritsen, ME. Therapeutic Angiogenesis. In: Pharmacology. From Drug Development to Gene Therapy (R.A. Myers ed). Wiley-VCH GmbH & Co. KGa, Darmstadt. 2008.

Issued Patents (US. Patent number and title).

9,572,811 Treatment of dry eye

9,452,156 Formulations and methods for vascular permeability-related diseases or conditions

8,486,960 Formulations and methods for vascular permeability-related diseases or conditions

8,222,271 Formulations and methods for vascular permeability-related diseases or conditions

7,777,007 PRO9907 antibodies (Leucine rich repeat transmembrane neuronal 4)

7,736,645 EG-VEGF nucleic acids and polypeptides and methods of use

7,704,498 ErbB4 antagonists

7,700,736 PRO350 antibodies (neuropeptide similar to somatostatin)

7,597,884 Hyperglycosylated polypeptide variants and methods of use

7,582,293 Anti-PRO6308 antibodies (Cancer susceptibility candidate 4)

7,572,447 Methods and compositions for selective modulation of vascularization

7,557,192 Anti-PRO335 antibodies (leucine-rich repeats and immunoglobulin-like domains 3)

7,504,480 PRO10275 polypeptides

7,470,771 Secreted and transmembrane polypeptides and nucleic acids encoding the same

7,456,261 PRO9830 antibodies

7,432,345 PRO1475 polypeptide

7,429,641 PRO9830 polypeptides

7,417,116 PRO7155 polypeptides (N-acetylase 15)

7,408,042 Anti-PRO6181 antibodies (LYPD4 LY6/PLAUR domain containing 4)

7,407,660 Methods and compositions for selective modulation of vascularization

7,390,879 Secreted and transmembrane polypeptides and nucleic acids encoding the same

7,385,031 PRO6097 polypeptides (SLC35F5 solute carrier family 35, member F5)

7,332,579 Antibodies to human ErbB4

7,317,092 Secreted and transmembrane polypeptides and nucleic acids encoding the same

7,309,778 Secreted and transmembrane polypeptides and nucleic acids encoding the same

7,294,693 Pro4428 Polypeptides

7,288,384 Antibodies to polypeptides encoded by a nucleic acid underexpressed in esophageal tumor

7,285,644 Secreted and transmembrane polypeptides and nucleic acids encoding the same

7,279,552 Pro1782 polypeptides (serine peptidase inhibitor, Kazal type 6)

7,264,801 EG-VEGF nucleic acids and polypeptides and method of use

7,230,082 Secreted and transmembrane polypeptides and nucleic acids encoding the same

7,208,308 Secreted and transmembrane polypeptides and nucleic acids encoding the same

7,196,165 PRO363 polypeptides (adipocyte-specific adhesion molecule)

7,189,813 PRO1338 polypeptides

7,189,563 Secreted and transmembrane polypeptides and nucleic acids encoding the same

7,189,529 PRO792 nucleic acids (CLEC4G C-type lectin domain family 4, member G)

7,160,993 Nucleic acids encoding PRO4400 polypeptides (carbohydrate (N-acetylgalactosamine 4-0) sulfotransferase 14)

7,135,334 PRO20044 nucleic acids

7,109,305 Secreted and transmembrane polypeptides and nucleic acids encoding the same

7,094,567 Secreted and transmembrane polypeptides and nucleic acids encoding the same

7,081,520 Anti-pro 1570 antibodies (transmembrane protease, serine 4)

7,074,592 Secreted and transmembrane polypeptides nucleic acid encoding

7,070,955 Secreted and transmembrane polypeptides and nucleic acids encoding the same

7,056,736 Secreted and transmembrane polypeptides and nucleic acids encoding the same

7,029,874 Secreted and transmembrane polypeptides and nucleic acids encoding the same

7,018,837 Nucleic acids encoding secreted polypeptides that stimulate release of proteoglycans from cartilage

6,974,689 Nucleic acid encoding PRO211 polypeptides

6,936,254 Method of inducing fetal hemoglobin synthesis

6,858,427 Sphingosine kinases

References available on request