

CURRICULUM VITAE

Name: GEORGE KOLIOS MD PhD

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Present Posts:

Professor of Pharmacology, Head of the Laboratories of Pharmacology and Clinical Pharmacology, Faculty of Medicine, Democritus University of Thrace (June 2008 - onward).

Head of the Coordinating Committee of the Master's degree Program "Clinical Pharmacology and Therapeutics", Democritus University of Thrace (October 2006 - onward).

Member of the Scientific Board for Drug Approval, Greek National Organization for Medicines (September 2008 - onward).

Visiting Professor of Pharmacology, Department of Pharmacology, University of Bath, UK (January 2001 - onward).

Qualifications:

Degree of Medicine, Medical School of Athens, Greece (March 1980).

Specialization in Gastroenterology, Greek State Board (May 1990).

Doctorate of Medicine (MD Thesis), University of Athens, Greece (May 1992). *Study of macrophages in the colonic mucosa from patients with ulcerative colitis.*

PhD in Pharmacology, University of Bath, UK. (February 1998). *Regulation of nitric oxide and chemokine production in human colonic epithelial cells. Implication in intestinal inflammation.*

Previous appointments:

General Practitioner, Health Center of Vourgareli, Arta, Greece (1982- 1984).

Registrar in Internal Medicine and Gastroenterology, 2nd Dept of Medicine, University of Athens, Greece (1985-1990).

Registrar in Gastroenterology, Royal United Hospital, Bath UK (1990-1991).

Senior Registrar in Gastroenterology, Hippokration General Hospital, Athens, Greece (1991-1997).

Research Fellow (Grade II), Department of Pharmacy and Pharmacology, University of Bath, UK, (December 1995 – May 1996).

Consultant Gastroenterologist, Royal United Hospital, Bath, UK (January 1998 – November 2000).

Senior Clinical Research Fellow, Department of Pharmacy and Pharmacology, University of Bath, UK, (January 1998 – November 2000).

Researcher, Novartis Pharmaceuticals Ltd United Kingdom, (June 1999 – November 2000).

Assistant Professor of Gastroenterology, Head of the Division of Clinical Pharmacology, Faculty of Medicine, University of Crete (March 2001 – June 2008).

Visiting Scientist (Sabbatical), Laboratory of Molecular Immunology, Mucosal Immunobiology Section, National Institute of Health (NIH), Bethesda, Maryland, U.S.A. (January 2007-November 2007).

Visiting Scientist (Sabbatical), Immunology Institute, Mount Sinai School of Medicine, U.S.A. (November 2007-March 2008).

Grants:

1997-1998: £55,000, Astra Foundation, UK (Regulation of chemokines and inducible nitric oxide synthase by cytokines in Inflammatory Bowel Disease-IBD).

1999-2000: £ 120.000, Novartis, UK (The role of chemokines in the fibrotic process in IBD).

2002-2003: £ 15.000, Wellcome Trust, UK (Investigate the cross-talk between colonic epithelial cells, IEL and myofibroblasts and its relevance to IBD).

2005-2007: € 50,000, 25% Greek Ministry of National Education and 75% European Social Fund (The impact of chemokines in the fibrotic process of Crohn's disease; the role of myofibroblasts).

2006-2009: € 15,000, Greek Ministry of Health (The regulatory role of angiogenic and angiostatic CXC chemokines on colon cancer. Factors regulating the tumor growth and metastasis.

Memberships:

Full member of the Greek Society of Gastroenterology (November 1990).

Full member of the British Society for Immunology (November 1998).

Full member of the European Society of Gastrointestinal and Abdominal Radiology (May 2005).

Full member of the Society for Mucosal Immunology (September 2007).

Full member of the European Crohn's and Colitis Organisation (May 2008)

Full member of the Greek Society of Pharmacology (February 2009).

Member of the Greek Scientific Society for Rare Diseases & Orphan Drugs (December 2009).

Selected Publications:

- 1) **Kolios G**, Brown Z, Robson RL, Robertson DAF, Westwick J. Inducible nitric oxide synthase activity and expression in a human colonic epithelial cell line, HT-29. ***British Journal of Pharmacology*** 1995; 116:2866-2872.
- 2) **Kolios G**, Kaloterakis A, Filiotou A, Nakos A, Hadziyannis S. Gastroscopic findings in Mediterranean Kaposi's sarcoma (non-AIDS). ***Gastrointestinal Endoscopy*** 1995; 42:336-339.
- 3) **Kolios G**, Robertson DAF, Jordan NJ, Minty A, Caput D, Ferrara P, Westwick J. Interleukin-8 production by the human colon epithelial cell line HT-29: Modulation by interleukin -13. ***British Journal of Pharmacology*** 1996; 119:351-359.
- 4) Wright K, Ward SG, **Kolios G**, Westwick J. Activation of phosphatidylinositol 3-kinase by interleukin-13. An inhibitory signal for inducible nitric-oxide synthase expression in epithelial cell line HT-29. ***Journal of Biological Chemistry*** 1997; 272:12626-12633.

- 5) Davis AJ, **Kolios G**, Alvey CG, Robertson DA. Antibiotic prophylaxis for ERCP: a comparison of oral ciprofloxacin with intravenous cephazolin in the prophylaxis of high-risk patients. *Alimentary Pharmacology and Therapeutics* 1998; 12:207-211.
- 6) **Kolios G**, Rooney N, Murphy CT, Robertson DAF, Westwick J. Expression of inducible nitric oxide synthase activity in human colon epithelial cells: Modulation by T-lymphocyte derived cytokines. *Gut* 1998; 43:56-63.
- 7) **Kolios G**, Petoumenos C, Nakos A. Mediators of inflammation: production and implication in inflammatory bowel disease. *Hepatogastroenterology* 1998; 45:1601-1609.
- 8) Jordan NJ, **Kolios G**, Abbot SE, Sinai MA, Thompson DA, Petraki K, Westwick J. Expression of functional CXCR4 chemokine receptors on human colonic epithelial cells. *Journal of Clinical Investigation* 1999; 104:1061-1069.
- 9) **Kolios G**, Wright KL, Jordan NJ, Leithead BJ, Robertson DAF, Westwick J. C-X-C and C-C chemokine expression and secretion by the human colonic epithelial cell line, HT-29: Differential effect of T-lymphocyte derived cytokines. *European Journal of Immunology* 1999; 29:530-536.
- 10) Wright K, **Kolios G**, Westwick J, Ward SG. Cytokine-induced apoptosis in epithelial HT-29 cells is independent of nitric oxide formation. Evidence for an interleukin-13-driven phosphatidylinositol 3-kinase-dependent survival mechanism. *Journal of Biological Chemistry* 1999; 274:17193-17201.
- 11) **Kolios G**, Wright KL, Linehan JD, Robertson DA, Westwick J. Interleukin-13 inhibits nitric oxide production in human colonic mucosa. *Hepatogastroenterology* 2000; 47:714-717.
- 12) Weaver SA, Russo MP, Wright KL, **Kolios G**, Jobin C, Robertson DA, Ward SG. Regulatory role of phosphatidylinositol 3-kinase on TNF-alpha-induced cyclooxygenase 2 expression in colonic epithelial cells. *Gastroenterology* 2001; 120:1117-1127.
- 13) **Kolios G**, Valatas V, Psilopoulos D, Petraki K, Kouroumalis E. Depletion of non specific esterase activity in the colonic mucosa of patients with ulcerative colitis. *European Journal of Clinical Investigation* 2002; 32:265-273.
- 14) Valatas V, Xidakis C, Roumpaki H, **Kolios G**, Kouroumalis EA. Isolation of rat Kupffer cells: a combined methodology for highly purified primary cultures. *Cell Biology International* 2003; 27:67-73.

- 15) Kolios G, Valatas V, Ward SG. Nitric oxide in inflammatory bowel disease: a universal messenger in an unsolved puzzle. *Immunology* 2004; 113:427-437.
- 16) Koutroubakis IE, Theodoropoulou A, Xidakis C, Sfiridaki A, Notas G, **Kolios G**, Kouroumalis EA. Association between enhanced soluble CD40 ligand and prothrombotic state in inflammatory bowel disease. *European Journal of Gastroenterology and Hepatology* 2004; 16:1147-1152.
- 17) Notas G, **Kolios G**, Mastrodimou N, Kampa M, Vasilaki A, Xidakis C, Castanas E, Thermos K, Kouroumalis E. Cortistatin production by HepG2 human hepatocellular carcinoma cell line and distribution of somatostatin receptors. *Journal of Hepatology* 2004; 40:792-798.
- 18) Valatas V, **Kolios G**, Manousou P, Notas G, Xidakis C, Diamantis I, Kouroumalis E. Octreotide regulates CC but not CXC LPS-induced chemokine secretion in rat Kupffer cells. *British Journal of Pharmacology* 2004; 141:477-487.
- 19) Valatas V, **Kolios G**, Manousou P, Xidakis C, Notas G, Ljumovic D, Kouroumalis EA. Secretion of inflammatory mediators by isolated rat Kupffer cells: the effect of octreotide. *Regulatory Peptides* 2004; 120:215-225.
- 20) Vasilaki A, Papadaki T, Notas G, **Kolios G**, Mastrodimou N, Hoyer D, Tsilimbaris M, Kouroumalis E, Pallikaris I, Thermos K. Effect of somatostatin on nitric oxide production in human retinal pigment epithelium cell cultures. *Investigative Ophthalmology & Visual Science* 2004; 45:1499-1506.
- 21) Wright KL, Weaver SA, Patel K, Coopman K, Feeney M, **Kolios G**, Robertson DA, Ward SG. Differential regulation of prostaglandin E biosynthesis by interferon-gamma in colonic epithelial cells. *British Journal of Pharmacology* 2004; 141:1091-1097.
- 22) Xidakis C, **Kolios G**, Valatas V, Notas G, Mouzas I, Kouroumalis E. Effect of octreotide on apoptosis-related proteins in rat Kupffer cells: a possible anti-tumour mechanism. *Anticancer Research* 2004; 24:833-841.
- 23) Dimoulios P, **Kolios G**, Notas G, Matrella E, Xidakis C, Koulentaki M, Tsagarakis N, Kouroumalis A, Kouroumalis E. Ursodeoxycholic acid reduces increased circulating endothelin 2 in primary biliary cirrhosis. *Alimentary Pharmacology and Therapeutics* 2005; 21:227-234.
- 24) Kouroumalis A, Nibbs RJ, Aptel H, Wright KL, **Kolios G**, Ward SG. The Chemokines CXCL9, CXCL10, and CXCL11 Differentially Stimulate G α i-Independent Signaling and Actin Responses in Human Intestinal Myofibroblasts. *Journal of Immunology* 2005; 175:5403-5411.

- 25) Linehan JD, **Kolios G**, Valatas V, Robertson DA, Westwick J. Immunomodulatory cytokines suppress epithelial nitric oxide production in inflammatory bowel disease by acting on mononuclear cells. **Free Radical Biology & Medicine** 2005; 39:1560-1569.
- 26) Linehan JD, **Kolios G**, Valatas V, Robertson DA, Westwick J. Effect of corticosteroids on nitric oxide production in inflammatory bowel disease: are leukocytes the site of action? **American Journal Physiology - Gastrointestinal & Liver Physiology** 2005; 288:G261-G267.
- 27) Xidakis C, Ljumovic D, Manousou P, Notas G, Valatas V, **Kolios G**, Kouroumalis E. Production of pro- and anti-fibrotic agents by rat Kupffer cells; the effect of octreotide. **Digestive Diseases and Sciences** 2005; 50:935-941.
- 28) Charalampopoulos I, Androulidaki A, Minas V, Chatzaki E, Tsatsanis C, Notas G, Xidakis C, **Kolios G**, Kouroumalis E, Margioris AN, Gravanis A. Neuropeptide urocortin and its receptors are expressed in rat kupffer cells. **Neuroendocrinology** 2006; 84:49-57.
- 29) **Kolios G**, Valatas V, Kouroumalis E. Role of Kupffer cells in the pathogenesis of liver disease. **World Journal of Gastroenterology** 2006; 12:7413-7420.
- 30) **Kolios G**, Manousou P, Bourikas L, Notas G, Tsagarakis N, Mouzas I, Kouroumalis E. Ciprofloxacin inhibits cytokine-induced nitric oxide production in human colonic epithelium. **European Journal of Clinical Investigation** 2006; 36:720-729.
- 31) **Kolios G**, Kotzampassi K, Manousou P, Paramythiotis D, Papanastasiou H, Drygiannakis I, Notas G, Tsagarakis N, Eleftheriadis E, Kouroumalis E. Enteral nutrition affects nitric oxide production in peripheral blood and liver after a postoperative lipopolysaccharide-induced endotoxemia in rats. **Nutrition** 2007; 23:575-581.
- 32) Xidakis C, Mastrodimitou N, Notas G, Renieri E, **Kolios G**, Kouroumalis E, Thermos K. RT-PCR and immunocytochemistry studies support the presence of somatostatin, cortistatin and somatostatin receptor subtypes in rat Kupffer cells. **Regulatory Peptides** 2007; 143:76-82.
- 33) Damaskos D, **Kolios G**. Probiotics and prebiotics in inflammatory bowel disease: microflora 'on the scope'. **British Journal of Clinical Pharmacology** 2008; 65:453-467.
- 34) **Kolios G**, Valatas V, Manousou P, Xidakis C, Notas G, Kouroumalis E. Nitric oxide and MCP-1 regulation in LPS activated rat Kupffer cells. **Molecular and Cellular Biochemistry** 2008; 319:91-98.
- 35) Manousou P, **Kolios G**, Drygiannakis I, Pyrovolaki K, Bourikas L, Papadaki HA, Kouroumalis E. Expression of a splice variant of CXCR3 in Crohn's disease patients; indication for a lymphocyte--epithelial cell

- interaction. *Journal of Gastroenterology and Hepatology* 2008; 23:1823-1833.
- 36) Bourikas LA, **Kolios G**, Valatas V, Notas G, Drygiannakis I, Pelagiadis I, Manousou P, Klironomos S, Mouzas IA, Kouroumalis E. Ciprofloxacin decreases survival in HT-29 cells via the induction of TGF-beta1 secretion and enhances the anti-proliferative effect of 5-fluorouracil. *British Journal of Pharmacology* 2009; 157:362-370.
- 37) Galazios G, Papazoglou D, Tsikouras P, **Kolios G**. Vascular endothelial growth factor gene polymorphisms and pregnancy. *Journal of Maternal-Fetal & Neonatal Medicine* 2009; 22:371-378.
- 38) Kotzampassi K, **Kolios G**, Manousou P, Kazamias P, Paramythiotis D, Papavramidis TS, Heliadis S, Kouroumalis E, Eleftheriadis E. Oxidative stress due to anesthesia and surgical trauma: Importance of early enteral nutrition. *Molecular Nutrition & Food Research* 2009; 53:770-779.
- 39) Paschos KA, **Kolios G**, Chatzaki E. The corticotropin-releasing factor system in inflammatory bowel disease: Prospects for new therapeutic approaches. *Drug Discovery Today* 2009; 14:713-720.
- 40) Kefalakes E, Stylianides TJ, Amanakis G, **Kolios G**. Exacerbation of Inflammatory Bowel Diseases associated with the use of nonsteroidal anti-inflammatory drugs: Myth or Reality? *European Journal of Clinical Pharmacology* 2009; 65:963-70.
- 41) Tsagarakis NJ, Drygiannakis I, Batistakis AG, **Kolios G**, Kouroumalis EA. A concentration dependent effect of Ursodeoxycholate on apoptosis and caspases activities of HepG2 hepatocellular carcinoma cells. *European Journal of Pharmacology* 2010; 640:1-7.
- 42) Manousou P, Kolios G, Valatas V, Drygiannakis I, Bourikas L, Pyrovolaki K, Koutroubakis I, Papadaki HA, Kouroumalis E. Increased expression of Chemokine receptor CCR3 and its ligands in ulcerative colitis; the role of colonic epithelial cells in in vitro studies. *Clinical & Experimental Immunology* 2010; 162:337-347.
- 43) Kapetanakis S, Drygiannakis I, Kazakos K, Papanas N, **Kolios G**, Kouroumalis E, Verettas DA. Serum TGF- β 2 and TGF- β 3 are increased and positively correlated to pain, functionality and radiographic staging in osteoarthritis. *Orthopedics* 2010; 33:551.
- 44) Tsagarakis NJ, Drygiannakis I, Batistakis AG, **Kolios G**, Kouroumalis EA. Octreotide induces caspase activation and apoptosis in human hepatoma cells (HepG2). *World Journal of Gastroenterology* 2011; 17: 313-321.
- 45) Kambas K, Chrysanthopoulou A, Kourtzelis I, Skordala M, Mitroulis I, Rafail S, Vradelis S, Sigalas I, Wu YQ, Speletas M, **Kolios G**, Ritis K.

- Endothelin-1 signaling promotes fibrosis in vitro in a bronchopulmonary dysplasia model by activating the extrinsic coagulation cascade. **J Immunology** 2011; 186:6568-6575.
- 46) **Kolios G**, Lira SA. Chemokines and their receptors in gut homeostasis and disease. **Current Immunology Reviews** 2011; 7:271-279.
- 47) Chrysanthopoulou A, Mitroulis I, Kambas K, Skendros P, Kourtzelis I, Vradelis S, **Kolios G**, Aslanidis S, Doumas M, Ritis K. Tissue factor-thrombin signaling enhances the fibrotic activity of myofibroblasts in systemic sclerosis through endothelin-1 receptor A up-regulation. **Arthritis & Rheumatism** 2011; 63:3586-3597.
- 48) Tzouvelekis A, Bouros E, Oikonomou A, Ntolios P, Zacharis G, **Kolios G**, Bouros D. Effect and safety of Mycophenolate Mofetil in Idiopathic Pulmonary Fibrosis. **Pulmonary Medicine** 2011; 2011:849035.
- 49) Tzouvelekis A, Koliakos G, Ntolios P, Baira I, Bouros E, Oikonomou A, Zissimopoulos A, Boussios N, **Kolios G**, Paspaliaris V, Kakagia D, Kotsianidis I, Froudarakis M, Bouros D. Stem cell therapy for Idiopathic Pulmonary Fibrosis. A protocol proposal. **Journal of Translational Medicine** 2011; 9:182.
- 50) Tzouvelekis A, Galanopoulos N, Bouros E, **Kolios G**, Zacharis G, Ntolios P, Koulelidis A, Oikonomou A, Bouros D. Effect and safety of Mycophenolate mofetil or sodium in systemic sclerosis - associated interstitial lung disease. A meta-analysis. **Pulmonary Medicine** 2012; 2012:143637.
- 51) Domvri K, Zarogoulidis P, Porpodis K, Koffa M, Lambropoulou M, Kakolyris S, **Kolios G**, Zarogoulidis K, Chatzaki E. Gene therapy in liver diseases: State-of-the-art and future perspectives. **Current Gene Therapy** 2012; 12:463-483.
- 52) Drygiannakis I, Valatas V, Sfakianaki O, Bourikas L, Manousou P, Kambas K, Ritis K, **Kolios G**, Kouroumalis E. Proinflammatory cytokines induce crosstalk between colonic epithelial cells and subepithelial myofibroblasts: implication in intestinal fibrosis. **Journal of Crohn's and Colitis** 2013; 7:286-300.
- 53) Valatas V, He J, Rivollier A, **Kolios G**, Kitamura K, Kelsall BL. Host-dependent control of early regulatory and effector T cell differentiation underlies the genetic susceptibility of RAG2-deficient mouse strains to transfer colitis. **Mucosal Immunology** 2013; 6:601-611.
- 54) **Kolios G**, Moodley Y. Introduction to Stem Cells and Regenerative Medicine. **Respiration** 2013; 85:3-10.
- 55) Manousou P, **Kolios G**, Drygiannakis I, Koulentaki M, Pyrovolaki K, Voumvouraki A, Notas G, Bourikas L, Papadaki HA, Kouroumalis E.

- CXCR3 axis in patients with Primary Biliary Cirrhosis. The effect of Ursodeoxycholic Acid. *Clinical & Experimental Immunology* 2013; 172:9-15.
- 56) Chatzaki E, Anton PA, Million M, Lambropoulou M, Costantinidis T, **Kolios G**, Taché Y, Grigoriadis DE. CRF Receptor 2 in human colonic mucosa: down-regulation in Ulcerative Colitis. *World Journal of Gastroenterology* 2013; 19:1416-1423.
- 57) Pazaitou-Panayiotou K, Chemonidou C, Poupi A, Koureta M, Kaprara A, Lambropoulou M, Constantinidis TC, Galaktidou G, Koffa M, Kiziridou A, Kakolyris S, **Kolios G**, Kortsaris A, Chatzaki E. Gonadotropin-Releasing Hormone neuropeptides and receptor in human breast cancer: correlation to poor prognosis parameters. *Peptides* 2013; 42:15-24.
- 58) Balgkouranidou I, Karayiannakis A, Matthaïos D, Bolanaki H, Tripsianis G, Tentes AA, Lianidou E, Chatzaki E, Fiska A, Lambropoulou M, **Kolios G**, Kakolyris S. Assessment of SOX17 DNA methylation in cell free DNA from patients with operable gastric cancer. Association with prognostic variables and survival. *Clinical Chemistry and Laboratory Medicine* 2013; 51:1505-1510.
- 59) Paschos KA, Chouridou E, Koureta M, Lambropoulou M, **Kolios G**, Chatzaki E. The Corticotropin Releasing Factor system in the liver: expression, actions and possible implications in hepatic physiology and pathology. *Hormones (Athens)* 2013; 12:236-245
- 60) Drosos I, **Kolios G**. Stem cells in liver regeneration and their potential clinical applications. *Stem Cell Reviews and Reports* 2013; 9:668-684.
- 61) Tzouveleakis A, Paspaliaris V, Koliakos G, Ntolios P, Bouros E, Oikonomou A, Zissimopoulos A, Boussios N, Dardzinski B, Gritzalis D, Antoniadis A, Froudarakis M, **Kolios G**, Bouros D. A prospective, non-randomized, no placebo-controlled, phase Ib clinical trial to study the safety of the adipose derived stromal cells-stromal vascular fraction in Idiopathic Pulmonary Fibrosis. *Journal of Translational Medicine* 2013; 11:171.
- 62) Valatas V, Vakas M, **Kolios G**. The value of experimental models of colitis in predicting efficacy of biological therapies for inflammatory bowel diseases. *American Journal of Physiology, Gastrointestinal Liver Physiology* 2013; 305:G763-G785.

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