



Biochemical Pharmacology, Volume 80, issue 12, 15 December 2010

Contents

EDITORIAL

Inflammation: Novel arrows for an ancient target

1769–1770

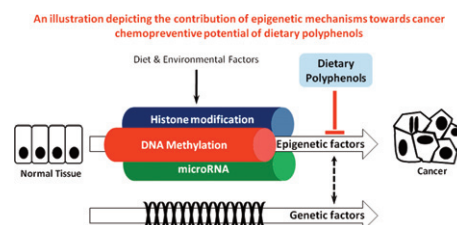
Cyril Sobolewski, Noémie Legrand, Franck Morceau, Marc Diederich

REVIEWS

Cancer chemoprevention by dietary polyphenols: Promising role for epigenetics

1771–1792

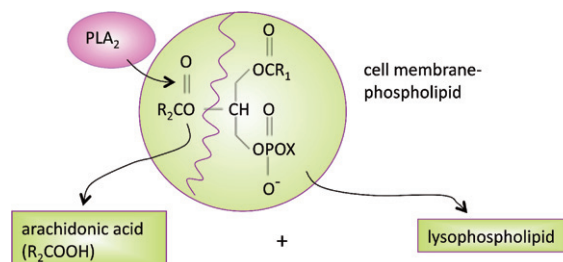
Alexander Link, Francesc Balaguer, Ajay Goel



Marine natural products targeting phospholipases A₂

1793–1800

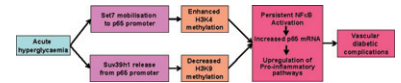
Florence Folmer, Marcel Jaspars, Marc Schumacher, Mario Dicato, Marc Diederich



Glycemic memory associated epigenetic changes

1853–1859

Andrew L. Siebel, Ana Z. Fernandez, Assam El-Osta

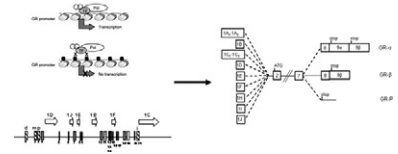


Transcriptional control of the glucocorticoid receptor: CpG islands, epigenetics and more

1860–1868

Jonathan D. Turner, Simone R. Alt, Lei Cao, Sara Vernocchi, Slavena Trifonova, Nadia Battello, Claude P. Muller

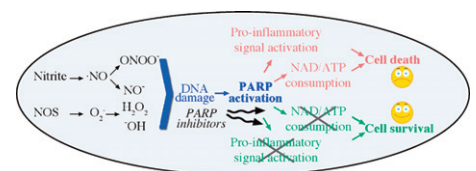
Glucocorticoid receptor levels are transcriptionally controlled. The variable 5' region produces multiple splice variants coding a single protein, and is regulated by epigenetic methylation and tissue-specific transcription factor usage.



PARP inhibitors: New tools to protect from inflammation

1869–1877

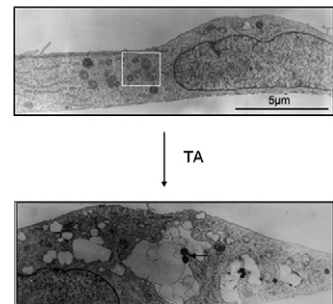
Vincenzo Giansanti, Francesca Donà, Micol Tillhon, A. Ivana Scovassi



On the retinal toxicity of intraocular glucocorticoids

1878–1886

Alicia Torriglia, Fatemeh Valamanesh, Francine Behar-Cohen,

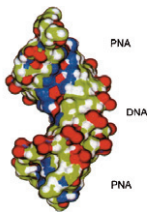


Decoy oligodeoxyribonucleotides and peptide nucleic acids–DNA chimeras targeting nuclear factor kappa-B: Inhibition of IL-8 gene expression in cystic fibrosis cells infected with *Pseudomonas aeruginosa*

1887–1894

Roberto Gambari, Monica Borgatti, Valentino Bezzerri, Elena Nicolis, Ilaria Lampronti, Maria Cristina Dehecchi, Irene Mancini, Anna Tamanini, Giulio Cabrini

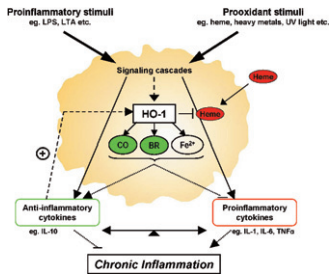
Decoy oligonucleotides and PNA–DNA–DNA chimeras targeting the transcription factor NF-kappaB inhibit the expression of IL-8 gene in cystic fibrosis IB3-1 cells infected by *Pseudomonas aeruginosa*. This strategy might be proposed to control inflammation in cystic fibrosis.



Signaling to heme oxygenase-1 and its anti-inflammatory therapeutic potential

1895–1903

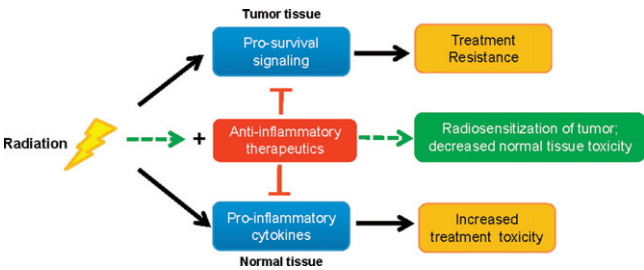
Ananta Paine, Britta Eiz-Vesper, Rainer Blasczyk, Stephan Immenschuh



Targeting inflammatory pathways for tumor radiosensitization

1904–1914

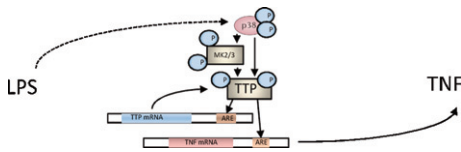
Amit Deorukhkar, Sunil Krishnan



MAPKAP kinases MK2 and MK3 in inflammation: Complex regulation of TNF biosynthesis via expression and phosphorylation of tristetraprolin

1915–1920

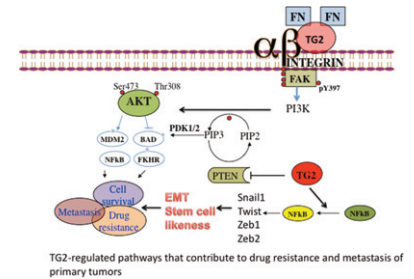
Natalia Ronkina, Manoj B. Menon, Jessica Schwermann, Christopher Tiedje, Edward Hitti, Alexey Kotlyarov, Matthias Gaestel



Transglutaminase 2: A multi-tasking protein in the complex circuitry of inflammation and cancer

1921–1929

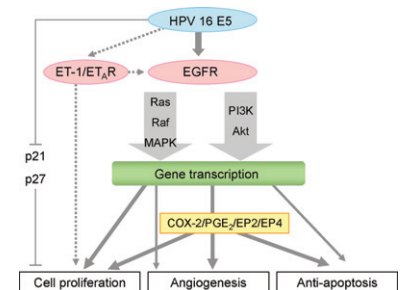
Kapil Mehta, Aupam Kumar, Hong Im Kim



Human papillomavirus type 16 E5 oncoprotein as a new target for cervical cancer treatment

1930–1936

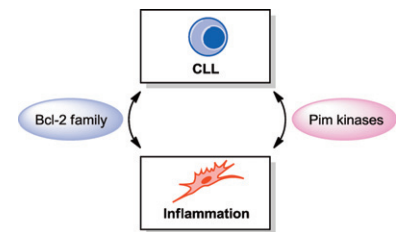
Mi-Kyung Kim, Hee Seung Kim, Su-Hyeong Kim, Jung-Min Oh, Jae Yong Han, Jeong Mook Lim, Yong-Sung Juhnn, Yong-Sang Song



Inflammation and survival pathways: Chronic lymphocytic leukemia as a model system

1936–1945

Lisa S. Chen, Kumudha Balakrishnan, Varsha Gandhi

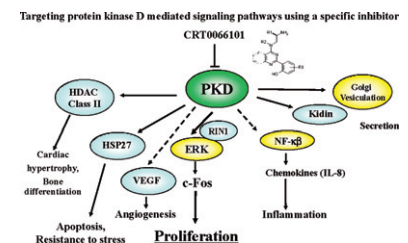


Role of protein kinase D signaling in pancreatic cancer

1946–1954

Sushovan Guha, Suebpong Tanasanvimon, James Sinnett-Smith, Enrique Rozengurt

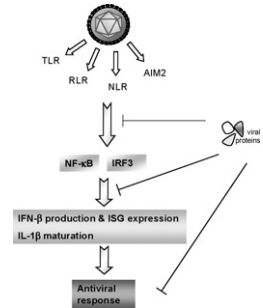
Targeting protein kinase D-mediated signaling pathways using a specific inhibitor CRT0066101.



Innate immune response and viral interference strategies developed by Human Herpesviruses

1955–1972

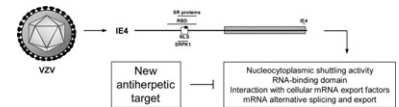
Patricia Vandevenne, Catherine Sadzot-Delvaux, Jacques Piette



The Varicella-Zoster virus IE4 protein: A conserved member of the herpesviral mRNA export factors family and a potential alternative target in antiherpetic therapies

1973–1980

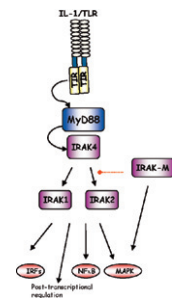
Isabelle Ote, Jacques Piette, Catherine Sadzot-Delvaux



The interleukin-1 receptor-associated kinases: Critical regulators of innate immune signalling

1981–1991

Sinead Flannery, Andrew G. Bowie

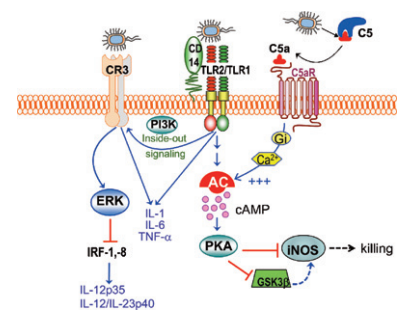


Complement and periodontitis

1992–2001

George Hajishengallis

Complement cross-talk pathways and their exploitation by the periodontal pathogen *Porphyromonas gingivalis*. *P. gingivalis* activates TLR2 and induces PI3K inside-out signaling, which transactivates CR3. Ligation of transactivated CR3 by *P. gingivalis* induces ERK1/2 signaling and specific downregulation of IL-12 expression, through suppression of critical transcription factors (IRF-1, -8). Moreover, *P. gingivalis* enzymatically attacks C5 and releases biologically C5a. Upon C5aR binding, C5a stimulates G α_i -dependent intracellular Ca²⁺ signaling which synergistically enhances cAMP production. The ensuing activation of the cAMP-dependent PKA pathway inactivates GSK3 β and impairs iNOS-dependent killing of the pathogen.

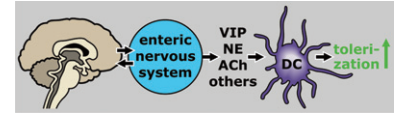


Neurogenic regulation of dendritic cells in the intestine

2002–2008

Laurens E.J. Nijhuis, Brenda J. Olivier, Wouter J. de Jonge

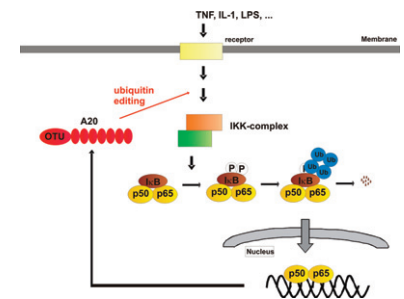
Vasoactive intestinal peptide (VIP), norepinephrine (NE), and acetylcholine (ACh) released by the enteric nervous system can tolerize dendritic cells in the gut.



Expression, biological activities and mechanisms of action of A20 (TNFAIP3)

2009–2020

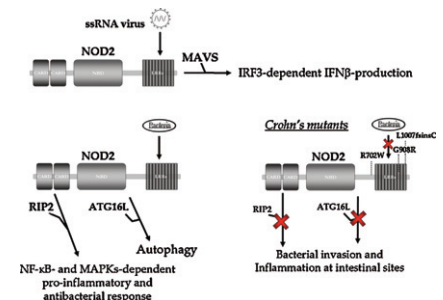
Lynn Verstrepen, Kelly Verhelst, Geert van Loo, Isabelle Carpentier, Steven C. Ley, Rudi Beyaert



The protein Nod2: An innate receptor more complex than previously assumed

2021–2031

Aurore Lecat, Jacques Piette, Sylvie Legrand-Poels



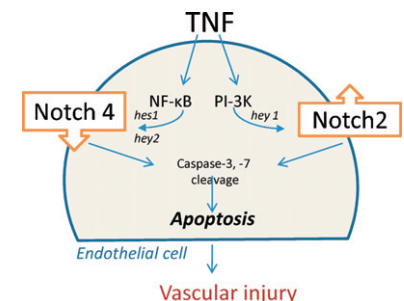
ARTICLES

Inflammation dysregulates Notch signaling in endothelial cells: Implication of Notch2 and Notch4 to endothelial dysfunction

2032–2041

Thibaut Quillard, Julie Devallière, Stéphanie Coupel, Béatrice Charreau

TNF promotes apoptosis in endothelial cells through a downregulation of Notch activity and a phenotypic switch where Notch4 is replaced by Notch2.

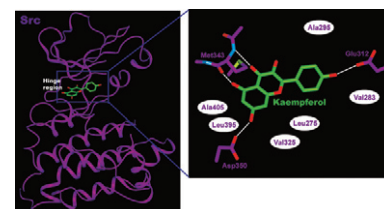


Kaempferol inhibits UVB-induced COX-2 expression by suppressing Src kinase activity

2042–2049

Kyung Mi Lee, Ki Won Lee, Sung Keun Jung, Eun Jung Lee, Yong-Seok Heo, Ann M. Bode, Ronald A. Lubet, Hyong Joo Lee, Zigang Dong

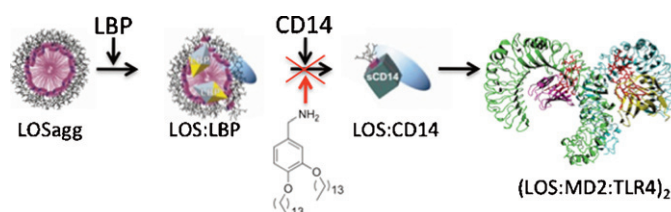
Hypothetical computational models of Src in complex with kaempferol. Our results suggest that kaempferol is a potent chemopreventive agent against skin cancer through its inhibitory interaction with Src.



The cationic amphiphile 3,4-bis(tetradecyloxy)benzylamine inhibits LPS signaling by competing with endotoxin for CD14 binding

2050–2056

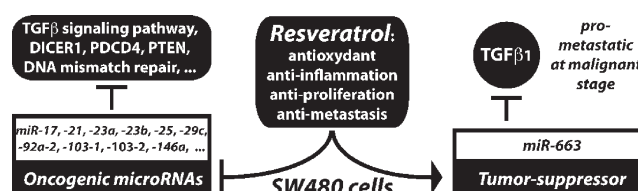
Matteo Piazza, Valentina Calabrese, Chiara Baruffa, Theresa Gioannini, Jerrold Weiss, Francesco Peri



Resveratrol modulates the levels of microRNAs targeting genes encoding tumor-suppressors and effectors of TGF β signaling pathway in SW480 cells

2057–2065

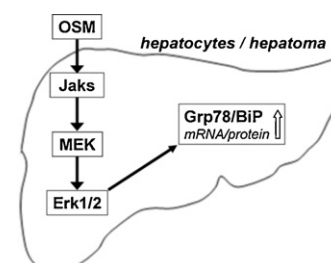
Esmerina Tili, Jean-Jacques Michaille, Hansjuerg Alder, Stefano Volinia, Dominique Delmas, Norbert Latruffe, Carlo M. Croce



Oncostatin M up-regulates the ER chaperone Grp78/BiP in liver cells

2066–2073

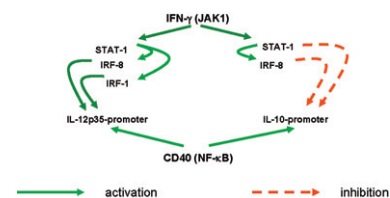
Stefan Vollmer, Claude Haan, Iris Behrmann



IFN- γ activated JAK1 shifts CD40-induced cytokine profiles in human antigen-presenting cells toward high IL-12p70 and low IL-10 production

2074–2086

Michael Conzelmann, Andreas H. Wagner, Anke Hildebrandt, Elena Rodionova, Michael Hess, Annika Zota, Thomas Giese, Christine S. Falk, Anthony D. Ho, Peter Dreger, Markus Hecker, Thomas Luft

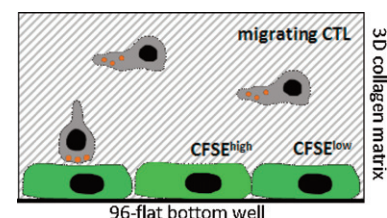


A three-dimensional organotypic assay to measure target cell killing by cytotoxic T lymphocytes

2087–2091

Bettina Weigelin, Peter Friedl

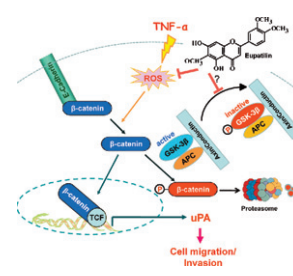
We here describe an organotypic 3D collagen matrix assay to monitor CTL migration, conjugation and killing of target cells which is suitable for pharmacological compound analysis.



TNF- α induces expression of urokinase-type plasminogen activator and β -catenin activation through generation of ROS in human breast epithelial cells

2092–2100

Min-Jung Kim, Do-Hee Kim, Hye-Kyung Na, Young-Joon Surh



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