

CURRICULUM VITAE
Ching-Shih Chen (陳慶士), Ph.D.

ADDRESS

Institute of Biological Chemistry
 Academia Sinica
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Present position

Distinguished Research Fellow

Education

<u>Institution</u>	<u>Degree</u>	<u>Years</u>	<u>Area of Study</u>
National Taiwan University	B.S.	9/74 – 6/78	Agricultural Chemistry
National Taiwan University	M.S.	9/78 – 6/80	Biochemistry
University of Wisconsin - Madison	Ph.D.	9/80 – 1/85	Pharmaceutical Biochemistry
University of Wisconsin – Madison	Postdoc.	1/85 – 12/86	Medicinal Chemistry

III. Academic Appointments

Academia Sinica, Taipei, Taiwan

August 2014 – present Distinguished Research Fellow & Director, Institute of Biological Chemistry

The Ohio State University

April 2001 – Professor of Medicinal Chemistry
 April 2001 – Member, The Comprehensive Cancer Center and Chemistry-Biology Interface Training Program
 June 2002 – Professor of Internal Medicine and Urology

University of Kentucky

July 1998 – March 2001 Professor of Pharmaceutical Sciences
 July 1995 – June 1998 Associate Professor of Pharmaceutical Sciences
 July 1995 – March 2001 Member, Markey Cancer Center

University of Rhode Island

July 1991 – June 1995 Associate Professor of Medicinal Chemistry & Pharmacognosy
 January 1987 – June 1991 Assistant Professor of Medicinal Chemistry & Pharmacognosy

Grant Review Panel

2010 - 2012 CDMRP Prostate Cancer Research Program, Programmatic Review Committee
 2009 NCI Drug Discovery and Development P01 Special Emphasis Panel, ZCA1 RPPB-P
 2009 Canadian Cancer Society Research Institute, Program project Site Visit at University of Montreal
 2004 - 2009 Chartered member, Basic Mechanism for Cancer Therapeutics (BMCT) Study Section, NCI

2008	NCI Drug Discovery and Development P01 Special Emphasis Panel, ZCA1 RPPB-M
2006	California Breast Cancer Research Program, Pathogenesis committee
2005	California Breast Cancer Research Program, Innovative Treatments/Earlier Detection committee
2004	CDMRP Prostate Cancer Research Program CET-3 grant reviews
2004	NICDC Special Emphasis Panel to evaluate clinical center grant (P50) application
2003	CDMRP, Prostate Cancer Research Program, Clinical & Experimental Therapeutics #3, CET-3
2003	Co-chair, NIDDK O'Brien Urology Center Grants Review
2003	NCI Special Emphasis Panel Member. FLAIR applications
2002	NCI Program Project Site Visit (P01 CA100336-01)
2002	NCI Initial Review Group, Subcommittee C
2001	NIH, NIDDK Special Emphasis Panel, RFA: Role of Hormones and Growth Factors in Prostate Cancer
1999 -2001	California Breast Cancer Research Program, Pathogenesis Review Committee

Honors

United States

2014 -	Elected Fellow, National Academy of Inventors
2009 - 2010	Clinical trials of two drugs developed in my lab, OSU-03012 (AR12) and OSU-HDAC42 (AR42), in solid and hematological malignancies at OSUCCC and in the United Kingdom
2010 - 2012	Programmatic Review Committee, CDMRP Prostate Cancer Research Program
2007, 2008	Prostate Cancer Foundation (formerly CapCure) Research Awards for two consecutive years
2008	Hearst Foundation Research Award
2004 -	Elected Fellow, American Association for the Advancement of Science (AAAS)
2004	Winner of the V Foundation-AACR Grants in Translational Cancer Research
1994	Shannon Award, NIH

The Ohio State University

2005 - Present	The Lucius A. Wing Chair of Cancer Research and Therapy, OSU Medical Center
2010	The Inaugural Innovator of the Year Award, OSU
2010	Distinguished University Scholar Award, OSU
2008	Innovation in Drug Discovery Award, College of Pharmacy, OSU
2003 - 2006	Kimberly Chair Professorship, OSU College of Pharmacy

Taiwan

- 2005 - 2014 Scientific Advisory Committee, Institute of Biological Chemistry, Academia Sinica, Taiwan
- 2005 - 2011 Scientific Advisory Committee, National Science and Technology Program in Biotechnology and Pharmaceuticals, Taiwan
- 2009- Present Honorary Chair Professor, Institute of Molecular and Cell Biology, National Chung-Hsin University, Taiwan
- 2013- Present Honorary Chair Professor, College of Medicine, National Cheng Kung University
- 2007- Present Adjunct Professor, College of Pharmacy, National Taiwan University
- 2006- Present Honorary Chair Professor, Department of Biological Science and Technology, China Medical University
- 2004-Present Honorary Chair Professor, College of Pharmacy, Kaohsiung Medical University, Taiwan

University of Kentucky and University of Rhode Island

- 2000 Outstanding Faculty Award, College of Pharmacy, University of Kentucky
- 1999 Outstanding Professor Award, College of Pharmacy, University of Kentucky
- 1992 Teacher of the Year Award, College of Pharmacy, University of Rhode Island

Publications (*h-index* = 59)

2017

1. H.-C. Chuang, P.-H. Huang, S. K. Kulp, and **C.-S. Chen** (2017) "Pharmacological strategies to target oncogenic KRAS signaling in pancreatic cancer" *Pharmacol. Res.* 117, 370-376 (invited review)
2. P.-H. Huang, P.-J. Lu, L.-Y. Ding, P.-C. Chiu, W.-Y. Hsu, C.-S. Chen, C.-C. Tsao, B.-H. Chen, C.-T. Lee, Y.-S. Shan, and **C.-S. Chen** (2017) "TGF β promotes Mesenchymal Phenotype of Pancreatic Cancer Cells through Epigenetic Activation of VAV1" *Oncogene*, 36, 2202-2214; PMID: 27893715 DOI: [10.1038/onc.2016.378](https://doi.org/10.1038/onc.2016.378)
3. H.-L. Huang, H.-Y. Wu, P.-C. Chu, I.-L. Lai, P.-H. Huang, S. K. Kulp, S.-L. Pan, C.-M. Teng, **C.-S. Chen** (2017) "Role of integrin-linked kinase in regulating the protein stability of the MUC1-C oncoprotein in pancreatic cancer cells" *Oncogenesis* accepted
4. S. Murahari, A. L. Jalkanen, S. K. Kulp, C.-S. Chen, J. F. Modiano, C. A. London, W. C. Kisseberth (2017) "Sensitivity of osteosarcoma cells to HDAC inhibitor AR-42 mediated apoptosis" *BMC Cancer* 17, 67; PMID: 28109246 PMCID: [PMC5251323](https://pubmed.ncbi.nlm.nih.gov/PMC5251323/) DOI: [10.1186/s12885-017-3046-6](https://doi.org/10.1186/s12885-017-3046-6)
5. H. M. Komar, G. Serpa, C. Kerscher, E. Schwoegl, T. A. Mace, M. Jin, M.-C. Yang, **C.-S. Chen**, M. Bloomston, M. C. Ostrowski, P. A. Hart, D. L. Conwell, and G. B. Lesinski (2017) "Inhibition of Jak/STAT signaling reduces the activation of pancreatic stellate cells *in vitro* and limits caerulein-induced chronic pancreatitis *in vivo*" *Sci Rep.* 7, 1787 DOI:[10.1038/s41598-017-01973-0](https://doi.org/10.1038/s41598-017-01973-0)

2016

6. P.-C. Chu, M.-C. Yang, S. K. Kulp, S. B. Salunke, Y.-S. Shan, C.-T. Lee, M.-D. Lai, L. A. Shirley, T. Bekaii-Saab, and **C.-S. Chen** (2016) "Regulation of Oncogenic KRAS Signaling via a Novel KRAS-ILK-hnRNPA1 Regulatory Loop in Pancreatic Cancer Cells" *Oncogene*, 35, 3897-3908
7. E.-C. Hsu, S. K. Kulp, H.-L. Huang, H.-J. Tu, M.-W. Chao, Y.-C. Tseng, M.-C. Yang, S. B. Salunke,

- N. J. Sullivan, W.-C. Chen, J. Zhang, C.-M. Teng, W.-M. Fu, D. Sun, M. S. Wicha, C. L. Shapiro, and **C.-S. Chen** (2016) “Integrin-linked kinase as a novel molecular switch of the IL-6-NF- κ B signaling loop in breast cancer” *Carcinogenesis*, 37, 430-442
8. M.-W. Chao, P.-C. Chu, H.-C. Chuang, F.-H. Shen, C.-C. Chou, E.-C. Hsu, L. Himmel, H.-L. Huang, H.-J. Tu, S. Kulp, C.-M. Teng, **C.-S. Chen** (2016) “Non-epigenetic Function of HDAC8 in Regulating Breast Cancer Stem Cells by Maintaining Notch1 Protein Stability” *Oncotarget*, 7, 1796-8107
 9. P. C. Chu, S. K. Kulp, T. Bekaii-Saab, and **C.-S. Chen** (2016) “Targeting integrin-linked kinase to suppress oncogenic KRAS signaling in pancreatic cancer” *Small GTPases*, Dec. 9:1-5 [Epub ahead of print; PMID: 27936345 DOI: [10.1080/21541248.2016.1251383](https://doi.org/10.1080/21541248.2016.1251383)]
 10. S. E. Henderson, L.-Y. Ding, X. Mo, T. Bekaii-Saab, S. K. Kulp, **C.-S. Chen**,* and P.-H. Huang* (2016) “Suppression of Tumor Growth and Muscle Wasting in a Transgenic Mouse Model of Pancreatic Cancer by the Novel Histone Deacetylase Inhibitor AR-42” *Neoplasia* 18, 765-774 (*co-corresponding author)
 11. K.-Y. Huang, S.-H. Kao, W.-L. Wang, C.-Y. Chen, T.-H. Hsial, S. B. Salunke, J.J.W. Chen, K.-Y. Su, S.-C. Yang, T.-M. Hong, **C.-S. Chen**, and P.C. Yang (2015) “Small-molecule, T315, promotes CBL-dependent degradation of EGFR via Y1045 autophosphorylation” *Am. J. Respir. Crit. Care Med.* 193, 753-766
 12. P. Trikha, R. L. Plews, A. Stiff, V. Hsu, D. Abood, R. Wesolowski, L. Landi, X. Mo, J. Phay, **C.-S. Chen**, S. Tridandapani, J. Byrd, M. Caligiuri, and W. Carson “Targeting Myeloid Derived Suppressor Cells (MDSC) Using a Novel Adenosine Monophosphate-activated Protein Kinase (AMPK) Activator” *Oncoimmunology* 25, 5, e1214787
 13. L. E. Himmel, M. B. Lustberg, A. C. Devries, M. Poi, **C.-S. Chen**, S. K. Kulp (2016) “Minocycline, a putative neuroprotectant, co-administered with doxorubicin-cyclophosphamide chemotherapy in a xenograft model of triple-negative breast cancer” *Exp. Toxicol. Pathol.* 68, 505-515 PMID: 27555377 PMCID: [PMC5203928](https://pubmed.ncbi.nlm.nih.gov/PMC5203928/) [Available on 2017-10-01] DOI: [10.1016/j.etp.2016.08.001](https://doi.org/10.1016/j.etp.2016.08.001)

2015

14. Y.-C. Tseng, S. K. Kulp, I.-L. Lai, E.-C. Hsu, W. A. He, D. E. Frankhouser, P. S. Yan, M. Bloomston, G. B. Lesinski, G. Marcucci, D. C. Guttridge, T. Bekaii-Saab,* and **C.-S. Chen*** (2015) “Preclinical investigation of the novel histone deacetylase inhibitor AR-42 in the treatment of cancer-induced cachexia” *J. Natl. Cancer Inst.*, 2015 Dec 12;107(12):djv274. doi: [10.1093/jnci/djv274](https://doi.org/10.1093/jnci/djv274)
15. C.-C. Chou, H.-C. Chuang, S. B. Salunke, S. K. Kulp, and **C.-S. Chen** (2015) “A novel HIF-1 α -integrin-linked kinase regulatory loop that facilitates hypoxia-induced HIF-1 α expression and epithelial-mesenchymal transition in cancer cells” *Oncotarget*, 6, 8271-85
16. R. Yan, H.-C. Chuang, N. Kapuriya, C.-C. Chou, P.-T. Lai, H.-W. Chang, C.-N. Yang, S. K. Kulp, and **C.-S. Chen** (2015) “Exploitation of the Ability of γ -Tocopherol to Facilitate Membrane Co-localization of Akt and PHLPP1 to Develop PHLPP1-Targeted Akt Inhibitors” *J. Med. Chem.*, 58, 2290-8
17. S. B. Salunke, A. K. Azad, N. P. Kapuriya, J.-M. Balada-Llasat, P. Pancholi, L. S. Schlesinger, and **C.-S. Chen** (2015) “Design and Synthesis of Novel Anti-tuberculosis Agents from the Celecoxib Pharmacophore” *Bioorg. Med. Chem.*, 23, 1935-1943
18. E.-C. Hsu, S. K. Kulp, H.-L. Huang, H.-J. Tu, S. B. Salunke, N. J. Sullivan, D. Sun, M. S. Wicha, C. L. Shapiro, and **C.-S. Chen** (2015) “Function of Integrin-Linked Kinase in Modulating the Stemness of IL-6–Abundant Breast Cancer Cells by Regulating γ -Secretase–Mediated Notch1 Activation in

- Caveolae” *Neoplasia*, 17, 497-508
19. E. M. E. Dokla, C.-S. Fang, P.-T. Lai, S. K. Kulp, N. S. M. Ismail, R. A.T. Serya, K. A. M. Abouzeid, and **Ching-Shih Chen** (2015) “Development of Potent Adenosine Monophosphate-Activated Protein Kinase Activators” *ChemMedChem*, 10, 1915-1923
 20. W.-L. Chang, L.-C. Hsu, W.-J. Leu, **C.-S. Chen***, and J.-H. Guh* (2015) “Repurposing of nitroxoline as a potential anticancer agent against human prostate cancer” *Oncotarget* 6, 39806-39820 (co-corresponding authors)
 21. R. Mani, Y. Mao, F. W. Frizzera, C.-L. Chiang, J. Wang, Y. Zhao, Y. Wu, B. Yu, R. Yan, X. Mo, L. Yu, J. Flynn, J. Jones, L. Andritsos, S. Baskar, C. Rader, M. A. Phelps, **C.-S. Chen**, R. J. Lee, J. C. Byrd, L. J. Lee, N. Muthusamy (2015) “Tumor antigen ROR1 targeted drug delivery mediated selective leukemic but not normal B-cell cytotoxicity in chronic lymphocytic leukemia” *Leukemia* 29, 346-355
 22. R. L. Plews, A. M. Yusof, C. Wang, M. Saji, X. Zhang, **C.-S. Chen**, M. D. Ringel, J. E. Phay “A Novel Dual AMPK Activator/mTOR Inhibitor Inhibits Thyroid Cancer Cell Growth” *J. Clin. Endocrinol. Metab.*, 100, E748-756
 23. T.-M. Liu, Y. Ling, J.A. Woyach, K. Beckwith, Y.Y. Yeh, E. Hertlein, Z. Zhang, A. Lehman, F. Awan, J.A. Jones, L.A. Andritsos, K. Maddocks, J. MacMurray, S.B. Salunke, **C.-S. Chen**, M.A. Phelps, J.C. Byrd, A.J. Johnson (2015) “OSU-T315: a novel targeted therapeutic that antagonizes AKT membrane localization and activation of chronic lymphocytic leukemia cells” *Blood* 125, 284-295

2014

24. C.-C. Chou, K.-H. Lee, I.-L. Lai, D. Wang, S. K. Kulp, C. L. Shapiro, and **C.-S. Chen** (2014) “Novel Function of AMPK in Reversing the Mesenchymal Phenotype of Cancer Cells by Targeting the Akt-MDM2-Foxo3a Signaling Axis” *Cancer Res.* 74, 4783-4795
25. I.-L. Lai, C.-C. Chou, P.-T. Lai, L. A. Shorley, R. Yan, M. Bloomston, S. K. Kulp, T. Beckaii-Saab,* and **C.-S. Chen*** (2014) “Targeting the Warburg effect with a novel glucose transporter inhibitor to overcome gemcitabine resistance in pancreatic cancer cells” *Carcinogenesis*, 35, 2203-2213
26. C.-C. Chiu, S. Salunke, S. K. Kulp, and **C.-S. Chen** (2014) “Prospects on strategies for therapeutically targeting oncogenic regulatory factors by small-molecule agents” *J. Cell. Biochem.* 115, 611-624
27. H.-C. Chuang, C.-C. Chou, S. K. Kulp, **C.-S. Chen** (2014) “AMPK as a potential anticancer target - friend or foe?” *Curr. Pharm. Des.* 20, 2607-1618
28. J.-H. Lo, S. K. Kulp, C.-S. Chen, and H.-C. Chiu (2014) “Sensitization of Intracellular *Salmonella enterica* Serovar Typhimurium to Aminoglycosides *In Vitro* and *In Vivo* by a Host-Targeted Antimicrobial Agent” *Antimicrob. Agents Chemother.* 58, 7375-7382
29. F.T. Awan, J. Jones, L. Andritsos, K. Maddocks, C.-H. Wu, **C.-S. Chen**, A. Lehman, X. Zhang, R. Lapalombella, J.C. Byrd (2014) “PKC- β as a therapeutic target in CLL: PKC inhibitor AEB071 demonstrates preclinical activity in CLL” *Blood* 124, 1481-1491
30. Y. Mao, J. Wang, Y. Zhao, R. Yan, H. Li, **C.-S. Chen**, R.J. Lee, J.C. Byrd, L.J. Lee, N. Muthusamy, M.A. Phelps (2014) “Quantification of OSU-2S, a novel derivative of FTY720, in mouse plasma by liquid chromatography-tandem mass spectrometry” *J Pharm Biomed Anal.* 98:160-5
31. L.D. Berman-Booty, J.M. Thomas-Ahner, B. Bolon, M.J. Oglesbee, S.K. Clinton, S.K. Kulp, C.-S. Chen, K. M. Perle (2014) “Extra-prostatic Transgene-associated Neoplastic Lesions in Transgenic Adenocarcinoma of the Mouse Prostate (TRAMP) Mice” *Toxicol. Pathol.* 2014 Apr 17. [Epub ahead of print]

32. J.-S. Tsai, L.-M. Chuang, C.-S. Chen, C.-J. Liang, C.-Y. Chen, and C.-Y. Chen (2014) “Troglitazone and $\Delta 2$ Troglitazone enhance adiponectin expression in monocytes/macrophages through the AMP-activated protein kinase pathway” *Mediators Inflamm.* 2014 Article ID 726068; doi: 10.1155/2014/726068
33. P. J. Hensley, A. Desiniotis, C. Wang, A. Stromberg, **C.-S. Chen**, N. Kyprianou (2014) “Novel pharmacological targeting of tight junctions and focal adhesions in prostate cancer cells” *PLoS ONE* 9, e86238
34. C.-H. Chen, M.-C. Chen, J.-C. Wang, A.-C. Tsai, **C.-S. Chen**, J.-P. Liou, S.-L. Pan, and C.-M. Teng (2014) “Synergistic interaction between the HDAC inhibitor, MPT0E028, and sorafenib in liver cancer cells *in vitro* and *in vivo*” *Clin. Cancer Res.* 20, 1274-1287
35. F.-L. Liu, J.-L. Hsu, Y.-J. Lee, Y.-S. Dong, F.-L. Kung, **C.-S. Chen**, J.-H. Guh (2014) “Calanquinone A induces anti-glioblastoma activity through glutathione-involved DNA damage and AMPK activation” *Eur J Pharmacol.* 730:90-101
36. Y. Mao, J. Wang, Y. Zhao, Y. Wu, K.J. Kwak, **C.-S. Chen**, J.C. Byrd, R.J. Lee, M.A. Phelps, L.J. Lee, N. Muthusamy N (2014) “A novel liposomal formulation of FTY720 (fingolimod) for promising enhanced targeted delivery” *Nanomedicine* 10, 393-400

2013

37. P.-H. Huang, H.-C. Chuang, C.-C. Chou, H. Wang, S.-L. Lee, H.-C. Yang, H.-C. Chiu, N. Kapuriya, D. Wang, S. K. Kulp, and **C.-S. Chen** (2013) “Vitamin E Facilitates the Inactivation of the Kinase Akt by the Phosphatase PHLPP1” *Science Signaling* 6 (267), ra19
38. S.-L. Lee, C.-C. Chou, H.-C. Chuang, E.-C. Hsu, P.-C. Chiu, S. K. Kulp, J. C. Byrd, and **C.-S. Chen** (2013) “Functional role of mTORC2 versus integrin-linked kinase in mediating Ser473-Akt phosphorylation in PTEN-negative prostate and breast cancer cell lines” *PLoS One* 8, e67149
39. L. D. Berman-Booty, P.-C. Chu, J. M. Thomas-Ahner, B. Bolon, D. Wang, T. Yang, S. K. Clinton, S. K. Kulp, **C.-S. Chen** (2013) “Suppression of Prostate Epithelial Proliferation and Intraprostatic Pro-Growth Signaling in Transgenic Mice by a New Energy Restriction-Mimetic Agent” *Cancer Prev. Res.* 6, 232-241
40. P.-C. Chu, S. K. Kulp, and C.-S. Chen (2013) “Insulin-like growth factor-I receptor is suppressed through transcriptional repression and mRNA destabilization by a novel energy restriction-mimetic agent” *Carcinogenesis* 34, 2694-2705
41. S. S. Bums, E. M. Akhmametyeva, J. L. Oblinger, M. L. Bush, J. Huang, V. Senner, **C.-S. Chen**, A. Jacob, D. B. Welling, L.-S. Chang (2013) “Histone Deacetylase Inhibitor AR-42 Differentially Affects Cell-cycle Transit in Meningeal and Meningioma Cells, Potently Inhibiting NF2-Deficient Meningioma Growth” *Cancer Res* 73, 792-803
42. Y. Ma, S. K. McCarty, N. P. Kapuriya, V. J. Brendel, C. Wang, X. Zhang, D. Jarjoura, M. Saji, **C.-S. Chen**, and M. D. Ringel (2013) “Development of p21 activated kinase-targeted multikinase inhibitors that inhibit thyroid cancer cell migration” *J. Clin. Endocrinol. Metab.*, 98, E1314-E1322
43. S.-Y. Lee, Z. Huang, T.-H. Kang, R. S. Soong, J. Knoff, E. Axenfeld, C. Wang, R. D. Ronald, **C.-S. Chen**, C.-F. Hung, T.-C. Wu (2013) “Histone deacetylase inhibitor AR-42 enhances E7-specific CD8(+) T cell-mediated antitumor immunity induced by therapeutic HPV DNA vaccination” *J. Mol. Med.* 91, 122-131
44. M.-C. Yen, T.-Y. Weng, Y.-L. Chen, C.-C. Lin, C.-Y. Chen, C.-Y. Wang, H.-L. Chao, **C.-S. Chen**, M.-D. Lai (2013) “An HDAC inhibitor enhances cancer therapeutic efficiency of RNA polymerase III promoter-driven IDO shRNA” *Cancer Gene Ther.* 20, 351-357

45. Y.-L. Yang, P.-H. Huang, H.-C. Chiu, S. K. Kulp, **C.-S. Chen**, C.-J. Kuo, H.-D. Chen, C.-S. Chen (2013) "Histone deacetylase inhibitor AR42 regulates telomerase activity in human glioma cells via an Akt-dependent mechanism" *Biochem. Biophys. Res. Commun.* 435, 107-112
46. S.-H. Chan, W.-J. Leu, L.-C. Hsu, H.-S. Chang, T.-L. Hwang, I.-S. Chen, **C.-S. Chen**, J.-H. Guh (2013) "Reevesioside F induces potent and efficient anti-proliferative and apoptotic activities through Na⁺ /K⁺ -ATPase α 3 subunit-involved mitochondrial stress and amplification of caspase cascades" *Biochem. Pharmacol.* 86,1564-1575
47. P. Neviani, J.G. Harb, J.J. Oaks, R. Santhanam, C.J. Walker, J.J. Ellis, G. Ferencak, A.M. Dorrance, C.A. Paisie, A.M. Eiring, Y. Ma, H.C. Mao, B. Zhang, M. Wunderlich, P.C. May, C. Sun, S.A. Saddoughi, J. Bielawski, W. Blum, R.B. Klisovic, J.A. Solt, J.C. Byrd, S. Volinia, J. Cortes, C.S. Huettner, S. Koschmieder, T.L. Holyoake, S. Devine, M.A. Caligiuri, C.M. Croce, R. Garzon, B. Ogretmen, R.B. Arlinghaus, **C.-S. Chen**, R. Bittman, P. Hokland, D.C. Roy, D. Milojkovic, J. Apperley, J.M. Goldman, A. Reid, J.C. Mulloy, R. Bhatia, G. Marcucci, D. Perrotti (2013) "PP2A-activating drugs selectively eradicate TKI-resistant chronic myeloid leukemic stem cells" *J. Clin. Invest.* 123, 4144-4157

2012

48. D. Wang, P.-C. Chu, C.N. Yang, R. Yan, Y.-C. Chung, S. K. Kulp, and **C.-S. Chen** (2012) "Development of a Novel Class of Glucose Transporter Inhibitors" *J. Med. Chem.* 55, 3827-3836
49. M.-J. Lai, H.-L. Huang, S.-L. Pan, Y.-M. Liu, C.-Y. Peng, H.-Y. Lee, T.-K. Yeh, P.-H. Huang, C.-M. Teng, **C.-S. Chen**, H.-Y. Chuang, and J.-P. Liou (2012) "Synthesis and Biological Evaluation of 1-Arylsulfonyl-5-(N-hydroxyacrylamide)indoles as Potent Histone Deacetylase Inhibitors with Antitumor Activity *in vivo*" *J. Med. Chem.* 55, 3777-91
50. P.-C. Chu, H.-C. Chuang, S. K. Kulp, and **C.-S. Chen** (2012) "The mRNA-Stabilizing Factor HuR protein Is Targeted by β -TrCP protein for Degradation in response to Glycolysis Inhibition" *J. Biol. Chem.* 287, 43639-50
51. S. Wei, P.-C. Chu, H.-C. Chuang, W.-C. Hung, S. K. Kulp, and **C.-S. Chen** (2012) "Targeting the oncogenic E3 ligase Skp2 in prostate and breast cancer cells with a novel energy restriction-mimetic agent" *PLoS One*, 7, e47298
52. H.-C. Chuang, N. Kapuriya, S. K. Kulp, **C.-S. Chen**, and C. L. Shapiro (2012) "Differential anti-proliferative activities of poly(ADP-ribose)polymerase (PARP) inhibitors in triple-negative breast cancer cells" *Breast Cancer Res. Treat.* 134, 649-659
53. H.-Y. Lin, Y.-C. Kuo, Y.-I. Weng, I.-L. Lai, T. H.-M. Huang, S.-P. Lin, D.-M. Niu, and **C.-S. Chen** (2012) "Activation of silenced tumor suppressor genes in prostate cancer cells by a novel energy restriction-mimetic agent" *Prostate* 72, 1767-1778
54. H.-C. Chiu, S.-L. Lee, N. Kapuriya, D. Wang, Y.-R. Chen, S.-L. Yu, S. K. Kulp, L.-J. Teng, and **C.-S. Chen** (2012) "Development of novel antibacterial agents against methicillin-resistant *Staphylococcus aureus*" *Bioorg. Med. Chem.* 20, 4653-4660
55. L. D. Berman-Booty, A. M. Sargeant, T. J. Rosol, R. C. Rengel, S. K. Clinton, C.-S. **Chen**, S. K. Kulp (2012) "A review of the existing grading schemes and a proposal for a modified grading scheme for prostatic lesions in TRAMP mice" *Toxicol. Pathol.* 40, 5-17
56. N. Bholi, M. Freilino, S. Joyce, M. Sen, S. Thomas, A. Sahu, A. Cassell, **C.-S. Chen**, and J. Grandis (2012) "Anti-tumor mechanisms of targeting the PDK1 pathway in head and neck cancer" *Mol. Cancer Ther.* 11, 1236-1246
57. R. Lapalombella, Y.-Y. Yeh, L. Wang, A. Ramanunni, S. Rafiq, S. Jha, J. Staubli, D. M. Lucas, R. Mani, S. E.M. Herman, A. J. Johnson, A. Lozanski, L. Andritsos, J. Jones, J. M. Flynn, B. Lannutti, P. Thompson, P. Algate, S. Stromatt, D. Jarjoura, X. Mo, D. Wang, **C.-S. Chen**, G. Lozanski, N. A. Heerema, S. Tridandapani, M. A. Freitas, N. Muthusamy, and J. C. Byrd (2012) "Tetraspanin CD37

- Directly Mediates Transduction of Survival and Apoptotic Signals” *Cancer Cell* 21, 694-708
58. L. Booth, N. Cruickshanks, T. Ridder, **C.-S. Chen**, S. Grant, P. Dent (2012) “OSU-03012 interacts with lapatinib to kill brain cancer cells” *Cancer Biol. Ther.* 13, 1501-11
 59. L. Booth, S. C. Cazanave, H. A. Hamed, A. Yacoub, B. Ogretmen, **C.-S. Chen**, S. Grant, P. Dent (2012) “OSU-03012 suppresses GRP78/BiP expression that causes PERK-dependent increases in tumor cell killing” *Cancer Biol. Ther.* 13, 224-36
 60. J.-L., Hsu, Y.-F. Ho, T.-K. Li, **C.-S. Chen**, L.-C. Hsu, J.-H. Guh (2012) “Rottlerin potentiates camptothecin-induced cytotoxicity in human hormone refractory prostate cancers through increased formation and stabilization of topoisomerase I-DNA cleavage complexes in a PKC δ -independent pathway” *Biochem. Pharmacol.* 84, 59-67
 61. J.-L. Hsu, P.-K. Leong, Y.-F. Ho, L.-C. Hsu, P.-H. Lu, **C.-S. Chen**, J.-H. Guh (2012) “Pim-1 knockdown potentiates paclitaxel-induced apoptosis in human hormone-refractory prostate cancers through inhibition of NHEJ DNA repair” *Cancer Lett.* 319, 214-22
 62. J.-M. Shieh, T.-T. Wei, Y.-A. Tang, S.-M. Huang, W.-L. Wen, M.-Y. Chen, H.-C. Cheng, S. B. Salunke, **C.-S. Chen**, P. Lin, C.-T. Chen, Y.-C. Wang (2012) “Mitochondrial apoptosis and FAK signaling disruption by a novel histone deacetylase inhibitor, HTPB, in antitumor and antimetastatic mouse models” *PLoS One* 7, e30240
 63. A. Jacob, J. Oblinger, M. L. Bush, V. Brendel, G. Santarelli, A. R. Chaudhury, S. K. Kulp, K. M. La Perle, C.-S. **Chen**, L. S. Chang, D. B. Welling (2012) “Preclinical validation of AR42, a novel histone deacetylase inhibitor, as treatment for vestibular schwannomas” *Laryngoscope* 122, 174-89

2011

64. M.-C. Chen, C.-H. Chen, H.-C. Chuang, S. K. Kulp, C.-M. Teng, and **C.-S. Chen** (2011) “Novel mechanism by which histone deacetylase inhibitors facilitate topoisomerase II α degradation in hepatocellular carcinoma cells” *Hepatology*, 53, 148-159
65. H. A. Omar, Y. C.-C. Chou, L. Berman-Booty, Y. Ma, J.-H. Hung, S. K. Kulp, T. Kogure, T. Patel, D. Wang, N. Muthusamy, J. C. Byrd, and **C.-S. Chen** (2011) “Antitumor effects of OSU-2S, a non-immunosuppressive analogue of FTY720, in hepatocellular carcinoma” *Hepatology*, 53, 1943-1958
66. C.H. Chen, P.-H. Huang, P.-C. Chu, M.-C. Chen, C.-C. Chou, D. Wang, S. K. Kulp, C.-M. Teng, and **C.-S. Chen** (2011) “Energy restriction-mimetic agents induce apoptosis in prostate cancer cells in part through epigenetic activation of KLF6 tumor suppressor gene expression” *J. Biol. Chem.* 286, 9968-9976
67. P.-H. Huang, C.-H. Chen, C.-C. Chou, A. M. Sargeant, S. K. Kulp, C.-M. Teng, J. C. Byrd, and **C.-S. Chen** (2011) “Histone deacetylase inhibitors stimulate histone H3 lysine 4 methylation, in part, via transcriptional repression of histone H3 lysine 4 demethylases” *Mol. Pharmacol.*, 79, 197-206
68. S.-L. Lee, E.-C. Hsu, C.-C. Chou, H.-C. Chuang, L.-Y. Bai, S. K. Kulp, and **C.-S. Chen** (2011) “Identification and characterization of a novel integrin-linked kinase inhibitor” *J. Med. Chem.*, 54, 6364-74
69. K.-H. Lee, E.-C. Hsu, J.-H. Guh, H.-C. Yang, D. Wang, S.K. Kulp, C. L. Shapiro, and **C.-S. Chen** (2011) “Targeting energy metabolism and oncogenic signaling pathways in triple-negative breast cancer by a novel AMPK activator” *J. Biol. Chem.*, 286, 39247-39258
70. P.-H. Huang, C. Plass, C.-S. Chen (2011) “Effects of histone deacetylase inhibitors on modulating H3K4 methylation marks – A novel cross-talk mechanism between histone-modifying enzymes” *Mol. Cell. Pharmacol.* 3, 39-43
71. B. Wang, P.-H. Huang, **C.-S. Chen**, and C. J. Forsyth (2011) “Total Syntheses of the Histone Deacetylase Inhibitors Largazole and 2-*epi*-Largazole: Application of *N*-Heterocyclic Carbene Mediated Acylations in Complex Molecule Synthesis” *J. Org. Chem.* 76, 1140-1150

72. T.-T. Ching, W.-C. Chiang, **C.-S. Chen**, and A.-L. Hsu (2011) "Celecoxib extends *C. elegans* lifespan via inhibition of insulin-like signaling but not cyclooxygenase-2 activity" *Aging Cell* 10, 506-519
73. N. K. Thudi, S. T. Shu, C. K. Martin, L. G. Lanigan, M. V. P. Nadella, A. V. Bokhoven, J. L. Werbeck, J. K. Simmons, S. Murahari, W. C. Kisseberth, M. Breen, C. Williams, **C.-S. Chen**, L. K. McCauley, E. T. Keller, and T. J. Rosol (2011) "Development of a brain metastatic canine prostate cancer cell line" *Prostate*, 71, 1251-1263
74. B. Zimmerman, A. Sargeant, K. Landes, S. A. Fernandez, **C.-S. Chen**, M. D. Lairmore (2011) "Efficacy of novel histone deacetylase inhibitor, AR42, in a mouse model of, human T-lymphotropic virus type 1 adult T cell lymphoma" *Leuk. Res.* 35, 1491-1497
75. M. L. Bush, J. Oblinger, V. Brendel, G. Santarelli, J. Huang, E. M. Akhmametyeva, S. S. Burns, J. Wheeler, J. Davis, C. W. Yates, A. R. Chaudhury, S. Kulp, C.-S. Chen, L.-S. Chang, D. B. Welling, A. Jacob (2011) "AR42, a novel histone deacetylase inhibitor, as a potential therapy for vestibular schwannomas and meningiomas" *Neuro. Oncol.* 13, 983-99
76. Y.-S. Lin, A. Y. Shaw, S.-G. Wang, C.-C. Hsu, I.-W. Teng, M.-J. Tseng, T. H.-M. Huang, **C.-S. Chen**, Y.-W. Leu, and S.-H. Hsiao (2011) "Identification of novel DNA methylation inhibitors via a two-component reporter gene system" *J. Biomed Sci* 18, 3
77. S. Zhang, A. Suvannasankha, C. D. Crean, V. L. White, **C.-S. Chen**, S. S. Farag (2011) "The novel histone deacetylase inhibitor, AR42, inhibits gp130/Stat3 pathway and induces apoptosis and cell cycle arrest in multiple myeloma cells", *Int. J. Cancer*, 129, 204-213
78. L. Alinari, E. Mahoney, J. Patton, X. Zhang, L. Huynh, C. T. Earl, R. Mani, Y. Mao, B. Yu, C. Quinion, W. H. Towns, **C.-S. Chen**, D. M. Goldenberg, K. A. Blum, J. C. Byrd, N. Muthusamy, M. Praetorius-Ibba, R. A. Baiocchi, (2011) "FTY720 increases CD74 expression and sensitizes mantle cell lymphoma cells to milatuzumab-mediated cell death" *Blood*, 118, 6893-6903
79. C. C. Hofmeister, X. Yang, F. Pichierri, P. Chen, D. M. Rozewski, A. J. Johnson, S. Lee, Z. Liu, C. L. Garr, E. M. Hade, J. Ji, L. J. Schaaf, D. M. Jr. Benson, E. H. Kraut, W. J. Hicks, K. K. Chan, **C.-S. Chen**, S. S. Farag, M. R. Grever, J. C. Byrd, M. A. Phelps (2011) "Phase I Trial of Lenalidomide and CCI-779 in Patients With Relapsed Multiple Myeloma: Evidence for Lenalidomide-CCI-779 Interaction via P-Glycoprotein" *Journal of Clinical Oncology* 29, 3427-3434
80. L.-Y. Bai, Y. Ma, S. K. Kulp, S.-H. Wang, C.-F. Chiu, F. Frizzera, R. Mani, X. Mo, D. Jarjoura, J. C. Byrd, **C.-S. Chen**, N. Muthusamy (2011) "OSU-DY7, a novel D-tyrosinol derivative, mediates cytotoxicity in chronic lymphocytic leukaemia and Burkitt lymphoma through p38 mitogen-activated protein kinase pathway" *British Journal of Haematology* 153, 623-633

2010

81. S. Wei, S. K. Kulp, **C.-S. Chen** (2010) "Energy Restriction as an Antitumor Target of Thiazolidinediones" *J. Biol. Chem.* 285, 9780-9791
82. J.-H. Guh, W.-L. Chang, J. Yang, S.-L. Lee, S. Wei, D. Wang, S. K. Kulp, and **C.-S. Chen** (2010) "Development of novel adenosine monophosphate-activated protein kinase activators" *J. Med. Chem.* 53, 2552-2561
83. T.-Y. Lin, J. Fenger, S. Murahari, M.D. Bear, S. K. Kulp, D. Wang, **C.-S. Chen**, W. C. Kisseberth, and C. A. London (2010) "AR-42, a novel HDAC inhibitor, exhibits biologic activity against malignant mast cell lines via down-regulation of constitutively activated Kit" *Blood* 115, 4217-4225
84. J.-R. Weng, H. A. Omar, S. K. Kulp, and **C.-S. Chen** (2010) "Pharmacological exploitation of indole-3-carbinol to develop potent antitumor agents" *Mini Rev Med Chem*, (invited review) 10, 398-404

85. M.-D. Lai, **C.-S. Chen**, C.-R. Yang, S.-Y. Yuan, J.-J. Tsai, C.-F. Tu, C.-C. Wang, M.-C. Yen, and C.-C. Lin (2010) "An HDAC inhibitor enhances the antitumor activity of a CMV promoter-driven DNA vaccine" *Cancer Gene Ther* 17, 203-211
86. H. A. Omar, L. Berman-Booty, S. K. Kulp, and C.-S. Chen (2010) "Energy restriction as an antitumor target" *Future Oncol.*, 6, 1675-1679
87. Q. Liu, L. Alinari, **C.-S. Chen**, F. Yan, J. T. Dalton, R. Lapalombella, X. Zhang, R. Mani, T. Lin, J. C. Byrd, R. A. Baiocchi, and N. Muthusamy (2010) "FTY720 shows promising in vitro and in vivo preclinical activity by downmodulating cyclin D1 and phospho-Akt in mantle cell lymphoma" *Clin. Cancer Res.* 16, 3182-3192
88. D. M. Lucas, L. Alinari, D. A. West, M. E. Davis, R. B. Edwards, A. J. Johnson, K. A. Blum, C. C. Hofmeister, M. A. Freitas, M. R. Parthun, D. Wang, Amy Lehman, X. Zhang, D. Jarjoura, S. K. Kulp, C. M. Croce, M. R. Grever, **C.-S. Chen**, R. A. Baiocchi, J. C. Byrd (2010) "The novel deacetylase inhibitor AR-42 demonstrates pre-clinical activity in B-Cell malignancies in vitro and in vivo" *PLoS ONE* 5, e10941
89. Y. A. Tang, W.-L. Wen, J.-W. Chang, T.-T. Wei, Y.-H. C. Tan, S. Salunke, C.-T. Chen, **C.-S. Chen**, and Y.-C. Wang (2010) "A novel histone deacetylase inhibitor exhibits antitumor activity via apoptosis induction, F-actin disruption and gene acetylation in lung cancer" *PLoS One* 5, e12417
90. R. Lapalombella, L. Andritsos, Q. Liu, S. E. May, R. Browning, L. V. Pham, K. A. Blum, W. Blum, A. Ramanunni, C. A. Raymond, L. L. Smith, A. Lehman, X. Mo, D. Jarjoura, **C.-S. Chen**, R. Jr. Ford, C. Rader, N. Muthusamy, A. J. Johnson, J. C. Byrd (2010) "Lenalidomide treatment promotes CD154 expression on CLL cells and enhances production of antibodies by normal B Cells through a PI3-kinase dependent pathway" *Blood* 115, 2619-2629
91. H. A. Hamed, A. Yacoub, M. A. Park, P. Eulitt, D. Sarkar, I. P. Dimitrie, **C.-S. Chen**, S. Grant, D. T. Curiel, P. B. Fisher, P. Dent (2010) "OSU-03012 enhances Ad.7-induced GBM cell killing via ER stress and autophagy and by decreasing expression of mitochondrial protective proteins" *Cancer Biol Ther*, 9, 526-536
92. N. Baryawno N, B. Sveinbjörnsson, S. Eksborg, **C.-S. Chen**, P. Kogner, and J. I. Johnsen (2010) "Small-Molecule Inhibitors of Phosphatidylinositol 3-Kinase/Akt Signaling Inhibit Wnt/ β -Catenin Pathway Cross-Talk and Suppress Medulloblastoma Growth", *Cancer Res*, 70, 266-276
93. H. L. Chandler, T. R. Webb, C. A. Barden, M. Thangavelu, S. K. Kulp, C.-S. Chen, C. M. H. Colitz (2010) "The effect of phosphorylated Akt inhibition on posterior capsule opacification in an ex vivo canine model" *Molecular vision*, 16, 2202-2214

2009

94. P.-H. Huang, D. Wang. H.-C. Chuang, S. Wei, S. K. Kulp, and **C.-S. Chen** (2009) " α -Tocopheryl succinate and derivatives mediate the transcriptional repression of androgen receptor in prostate cancer cells by targeting the PP2A-JNK-Sp1 signaling axis" *Carcinogenesis* 30, 1125-1131
95. S. Wei, H.-C. Chuang, W.-C. Tsai. H.-C. Yang. S.-R. Ho, A. J. Paterson, S. K. Kulp, and **C.-S. Chen** (2009) "Thiazolidinediones mimic glucose starvation in facilitating Sp1 degradation through the upregulation of β -TrCP" *Mol. Pharmacol.* 76, 47-57
96. Y.-T. Yang, C. Balch, S. K. Kulp, M. R. Mand, K. P. Nephew, and **C.-S. Chen** (2009) "A rationally designed histone deacetylase inhibitor with distinct antitumor activity against ovarian cancer" *Neoplasia* 11, 552-563
97. J.-R. Weng, C.-H. Tsai, H. Omar, A. M. Sargeant, D. Wang, S. K. Kulp, C. L. Shapiro, and **C.-S. Chen** (2009) "OSU-A9, a Potent Indole-3-Carbinol Derivative, Suppresses Breast Tumor Growth by Targeting the Akt-NF-kB Pathway and Stress Response Signaling" *Carcinogenesis* 30, 1702-1709

98. D. Wang, H.-C. Chuang, S.-C. Weng, P.-H. Huang, H.-Y. Hsieh, S. K. Kulp, and **C.-S. Chen** (2009) “ α -Tocopheryl Succinate as a Scaffold to Develop Potent Inhibitors of Breast Cancer Cell Adhesion” *J. Med. Chem.* 52, 5642-5648
99. H. A. Omar, A. M. Sargeant, J.-R. Weng, D. Wang, S. K. Kulp, T. Patel, **C.-S. Chen** (2009) “Targeting of the Akt-NF-kB Signaling Network by OSU-A9, a Novel Indole-3-Carbinol Derivative, in a Mouse Model of Hepatocellular Carcinoma” *Mol. Pharmacol.* 76, 957-968
100. H.-C. Chiu, J. Yang, S. Soni, S. K. Kulp, J. S. Gunn, L. S. Schlesinger, **C.-S. Chen** (2009) “Pharmacological Exploitation of an Off-Target Antibacterial Effect of the Cyclooxygenase-2 Inhibitor Celecoxib against *Francisella tularensis*” *Antimicrob. Agents Chemother.* 53, 2998-3002
101. H.-C. Chiu, S. K. Kulp, S. Soni, D. Wang, J. S. Gunn, L. S. Schlesinger, **C.-S. Chen** (2009) “Eradication of Intracellular *Salmonella enterica* serovar Typhimurium with a Small-Molecule, Host Cell-Directed Agent” *Antimicrob. Agents Chemother.* 53, 5236-5244
102. H.-C. Chiu, S. Soni, S. K. Kulp, H. Curry, D. Wang, J. S. Gunn, L. S. Schlesinger, and **C.-S. Chen** (2009) “Eradication of intracellular *Francisella tularensis* in THP-1 human macrophages with a novel autophagy inducing agent” *J. Biomed. Sci.* 16, 110-119
103. R. Lapalombella, A. Gowda, T. Joshi, N. Mehter, C. Cheney, A. Lehman, **C.-S. Chen**, A. J. Johnson, M. A. Caligiuri, S. Tridandapani, N. Muthusamy, and J. C. Byrd (2009) “The humanized CD40 antibody SGN-40 demonstrates pre-clinical activity that is enhanced by lenalidomide in chronic lymphocytic leukaemia” *Br. J. Haematol.* 144, 848-855
104. T. X. Lee, M. D. Packer, J. Huang, E. M. Akhmametyeva, S. K. Kulp, **C.-S. Chen**, M. Giovannini, A. Jacob, D. B. Welling, L. S. Chang (2009) “Growth inhibitory and anti-tumour activities of OSU-03012, a novel PDK-1 inhibitor, on vestibular schwannoma and malignant schwannoma cells” *Eur. J. Cancer* 45, 1709-1720
105. X. Contreras, M. Schweneker, **C.-S. Chen**, J. M. McCune, S. G. Deeks, J. Martin, and B. M. Peterlin (2009) “Suberoylanilide hydroxamic acid reactivates HIV from latently infected cells” *J. Biol. Chem.* 284, 6782-6789
106. S. Wei, J. Yang, S. -L. Lee, S. K. Kulp, and C.-S. Chen (2009) “PPAR γ -independent antitumor effects of thiazolidinediones” *Cancer Lett.* 276, 119-124 (invited review)

2008

107. Y.-C. Wang, S. K. Kulp, D. Wang, C.-C. Yang, A. M. Sargeant, J.-H. Hung, Y. Kashida, M. Yamaguchi, G.-D. Chang, and **C.-S. Chen** (2008) “Targeting Endoplasmic reticulum stress and Akt with OSU-03012 and gefitinib or erlotinib to overcome resistance to epidermal growth factor receptor inhibitors” *Cancer Res.* 68, 2820-2830
108. J.-H. Hung, Y.-S. Lu, Y.-C. Wang, Y.-H. Ma, D. Wang, S. K. Kulp, N. Muthusamy, J. C. Byrd, A.-L. Cheng, and **C.-S. Chen** (2008) “FTY720 induces apoptosis in hepatocellular carcinoma cells through activation of protein kinase C-delta signaling” *Cancer Res.* 68, 1204-1212
109. A.M. Sargeant, R. C. Rengel, S. K. Kulp, R. D. Klein, S. K. Clinton, Y.-C. Wang, and **C.-S. Chen** (2008) “OSU-HDAC42, a histone deacetylase inhibitor, blocks prostate tumor progression in the transgenic adenocarcinoma of the mouse prostate model” *Cancer Res.* 68, 3999-4009
110. S. Wei, H.-C. Yang, H.-C. Chuang, J. Yang, S. K. Kulp, P.-J. Lu, M.-D. Lai, and **C.-S. Chen** (2008) “A novel mechanism by which thiazolidinediones facilitate the proteasomal degradation of cyclin D1 in cancer cells” *J. Biol. Chem.* 283, 26759-26770
111. J. Yang, S. Wei, D. Wang, Y.-C. Wang, S. K. Kulp, and **C.-S. Chen** (2008) “Pharmacological exploitation of the peroxisome proliferator-activated receptor γ agonist ciglitazone to develop a novel class of androgen receptor-ablative agents” *J. Med. Chem.* 51, 2100-2107
112. S.-C. Weng, Y. Kashida, S. K. Kulp, D. Wang, R. W. Brueggemeier, C. L. Shapiro, and **C.-S. Chen**

- (2008) “Sensitizing estrogen receptor-negative breast cancer cells to tamoxifen with OSU-03012, a novel celecoxib-derived PDK-1/Akt signaling inhibitor” *Mol. Cancer Ther.* 7, 800-808
113. J.-R. Weng, C.-H. Tsai, S. K. Kulp, and **C.-S. Chen** (2008) “Indole-3-carbinol as a chemopreventive and anti-cancer agent” *Cancer Lett.* 262, 153-163 (Invited review)
114. Q. Liu, X. Zhao, F. Frizzera, Y. Ma, R. Santhanam, D. Jarjoura, A. Lehman, D. Perrotti, **C.-S. Chen**, J. T. Dalton, N. Muthusamy, and J.C. Byrd (2008) “FTY720 demonstrates promising preclinical activity for chronic lymphocytic leukemia and lymphoblastic leukemia/lymphoma” *Blood* 111, 275-284
115. R. Lapalombella, B. Yu, G. Triantafyllou, Q. Liu, J. P. Butchar, G. Lozanski, A. Ramanunni, L. L. Smith, W. Blum, L. Andritsos, D. Wang, A. Lehman, **C.-S. Chen**, A. J. Johnson, G. Marcucci, R. J. Lee, L. J. Lee, S. Tridandapani, N. Muthusamy, and J. C. Byrd (2008) “Lenalidomide down-regulates the CD20 antigen and antagonizes direct and antibody-dependent cellular cytotoxicity of rituximab on primary chronic lymphocytic leukemia cells” *Blood* 112, 5180-5189
116. M. A. Park, A. Yacoub, M. Rahmani, G. Zhang, L. Hart, M. P. Hagan, S. K. Calderwood, M. Y. Sherman, C. Koumenis, S. Spiegel, **C.-S. Chen**, M. Graf, D. T. Curiel, P. B. Fisher, S. Grant and P. Dent (2008) “OSU-03012 stimulates PKR-like endoplasmic reticulum-dependent increases in 70-kDa heat shock protein expression, attenuating its lethal actions in transformed cells” *Mol. Pharmacol.* 73, 1168-1184
117. H. Ding, C. Han, D. Guo, D. Wang, **C.-S. Chen**, and S. M. D’Ambrosio (2008) “OSU03012 activates Erk1/2 and Cdks leading to the accumulation of cells in the S-phase and apoptosis” *Int. J. Cancer* 123, 2923-2930
118. H. Ding, C. Han, D. Guo, D. Wang, W. Duan, **C.-S. Chen**, and S. M. D’Ambrosio (2008) “Sensitivity to the non-COX inhibiting celecoxib derivative, OSU03012, is p21WAF1/CIP1 dependent” *Int. J. Cancer* 123, 2931-2938
119. M. A. Park, D. T. Curiel, C. Koumenis, M. Graf, **C.-S. Chen**, P. B. Fisher, S. Grant, P. Dent (2008) “PERK-dependent regulation of Hsp70 expression and the regulation of autophagy” *Autophagy* 4, 364-367
120. L. A. Andritsos, A. J. Johnson, G. Lozanski, W. Blum, C. Kefauver, F. Awan, L. L. Smith, R. Lapalombella, S. E. May, C. A. Raymond, D. Wang, R. D. Knight, A. S. Ruppert, A. Lehman, D. Jarjoura, **C.-S. Chen**, J. C. Byrd (2008) “Higher doses of lenalidomide are associated with unacceptable toxicity including life-threatening tumor flare in patients with chronic lymphocytic leukemia” *J. Clin. Oncol.* 26, 2519-2525
121. M. Gao, P. Y. Yeh, Y.-S. Lu, C.-H. Hsu, K.-F. Chen, W.-C. Lee, W.-C. Feng, **C.-S. Chen**, M.-L. Kuo, A.-L. Cheng (2008) “OSU-03012, a novel celecoxib derivative, induces reactive oxygen species-related autophagy in hepatocellular carcinoma” *Cancer Res.* 68, 9348-9357
122. W. C. Kissebeth, S. Murahari, C.A. London, S. K. Kulp, **C.-S. Chen** (2008) “Evaluation of the effects of histone deacetylase inhibitors on cells from canine cancer cell lines” *American Journal of Veterinary Research* 69, 938-945
123. P. Neviani, R. Santhanam, Y. Ma, G. Marcucci, J. C. Byrd, **C.-S. Chen**, J. Cortes, M. A. Caligiuri, C. Huettner, R. Bhatia, D.-C. Roy, D. Perrotti (2008) “Activation of PP2A by FTY720 Inhibits Survival and Self-Renewal of the Ph(+) Chronic Myelogenous Leukemia (CML) CD34(+)/CD38(-) Stem Cell through the Simultaneous Suppression of BCR/ABL and BCR/ABL-independent Signals” *Blood* 112, 77-77

2007

124. Y.-S. Lu, Y. Kashida, S. K. Kulp, Y.-C. Wang, D. Wang, J.-H. Hung, M. Tang, Z.-Z. Lin, T.-J. Chen, A.-L. Cheng, and **C.-S. Chen** (2007) “Efficacy of a novel histone deacetylase inhibitor in murine models of hepatocellular carcinoma” *Hepatology* 46, 1119-1130

125. C.-C. Yang, Y.-C. Wang, S. Wei, C.-S. Chen, C.-C. Lee, C.-C. Lin, and **C.-S. Chen** (2007) "Peroxisome proliferator-activated receptor gamma-independent suppression of androgen receptor expression by troglitazone mechanism and pharmacologic exploitation" *Cancer Res.*, 67, 3229-3238
126. C.-S. Chen, Y.-C. Wang, H.-C. Yang, P.-H. Huang, S. K. Kulp, C.-C. Yang, Y.-S. Lu, S. Matsuyama, C.-Y. Chen, and **C.-S. Chen** (2007) "Histone Deacetylase Inhibitors Sensitize Prostate Cancer Cells to Agents That Produce DNA Double-Strand Breaks by Targeting Ku70 Acetylation" *Cancer Res.*, 67, 5318-5327
127. J.-R. Weng, C.-H. Tsai, S. K. Kulp, D. Wang, C.-H. Lin, H.-C. Yang, Y. Ma, A. Sargeant, C.-F. Chiu, M.-H. Tsai, and **C.-S. Chen** (2007) "A potent indole-3-carbinol-derived antitumor agent with pleotropic effects on multiple signaling pathways in prostate cancer cells" *Cancer Res.* 67, 7815-7824
128. A. M. Sargeant, R. D. Klein, R. C. Rengel, S. K. Clinton, S. K. Kulp, Y. Kashida, M. Yamaguchi, and **C.-S. Chen** (2007) "Chemopreventive and bioenergetic signaling effects of PDK1/Akt pathway inhibition in a transgenic mouse model of prostate cancer" *Toxicol. Pathol.* 35, 549-561
129. K. To, Y. Zhao, H. Jiang, K. Hu, M. Wang, J. Wu, C. Lee, D. W. Yokom, A. L. Stratford, U. Klinge, P. R. Mertens, **C.-S. Chen**, M. Bally, D. Yapp, S. E Dunn (2007) "The phosphoinositide-dependent kinase-1 inhibitor, OSU-03012, prevents Y-box binding protein-1 (YB-1) from inducing epidermal growth factor receptor (EGFR)" *Mol. Pharmacol.*, 72, 641-652
130. S. Wei, L.-F. Lin, C.-C. Yang, Y.-C. Wang, G.-D. Chang, H. Chen, and **C.-S. Chen** (2007) "Thiazolidinediones modulate the expression of β -catenin and other cell-cycle regulatory proteins by targeting the F-box proteins of Skp1-Cul1-F-box protein E3 ubiquitin ligase independently of PPAR γ " *Mol. Pharmacol.* 72, 725-733
131. L. M. Porchia, M. Guerra, Y. C. Wang, Y. Zhang, A. V. Espinosa, M. Shinohara, S. K. Kulp, L. S. Kirschner, M. Saji, **C.-S. Chen**, and M. D. Ringel (2007) "2-amino-N-{4-[5-(2-phenanthrenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]-phenyl}acetamide (OSU-03012), a celecoxib derivative, directly targets p21-activated kinase" *Mol. Pharmacol.* 72(5):1124-1131
132. B. J. Dewar, O. S. Gardner, **C.-S. Chen**, H. S. Earp, J. M. Samet, and L. M. Graves (2007) "Capacitative calcium entry contributes to the differential transactivation of the epidermal growth factor receptor in response to thiazolidinediones" *Mol. Pharmacol.* 72:1146-1156
133. L. Cen, F.-C. Hsieh, H.-J. Lin, **C.-S. Chen**, S. J. Qualman, and J. Lin (2007) "PDK-1/Akt pathway as a novel therapeutic target in rhabdomyosarcoma cells using OSU-03012 compound" *Br. J. Cancer*, 97, 785-791
134. P. Neviani, R. Santhanam, J. J. Oaks, A. M. Eiring, M. Notari, B. W. Blaser, S. Liu, R. Trotta, N. Muthusamy, C. Gambacorti-Passerini, B. J. Druker, J. Cortes, G. Marcucci, **C.-S. Chen**, N. M. Verrills, D. C. Roy, M. A. Caligiuri, C. D. Bloomfield, J. C. Byrd, and D. Perrotti (2007) "FTY720, a new alternative for treating blast crisis chronic myelogenous leukemia and Philadelphia chromosome-positive acute lymphocytic leukemia" *J. Clin. Invest.* 117(9):2408-2421
135. J. B. Garrison, Y.-J. Shaw, **C.-S. Chen**, and N. Kyrianiou (2007) "Novel quinazoline-based compounds impair prostate tumorigenesis by targeting tumor vascularity" *Cancer Res.* 67, 11344-11352
136. S. Zhang, A. Suvannasankha, C.D. Crean, V.L. White, A. Johnson, **C.S. Chen**, S.S. Farag "OSU-03012, a novel celecoxib derivative, is cytotoxic to myeloma cells and acts through multiple mechanisms" *Clin Cancer Res* 13 (2007) 4750-4758
137. F. J. Alvarez, S. Murahari, C. G. Couto, T. J. Rosol, S. K. Kulp, C.-S. Chen, W. C. Kisseberth (2007) "3-Phosphoinositide-dependent protein kinase-1/Akt signalling and inhibition in a canine prostate carcinoma cell line", *Veterinary and Comparative Oncology*, 5, 47-58

2006

138. C.-W. Shiau, J.-W. Huang, D.-S. Wang, J.-R. Weng, C.-C. Yang, C.-H. Lin, C. Li, and **C.-S. Chen** (2006) “ α -Tocopheryl Succinate Induces Apoptosis in Prostate Cancer Cells in part through Inhibition of Bcl-xL/Bcl-2 Function” *J. Biol. Chem.*, 281, 11819-11825
139. C.-C. Yang, C.-Y. Ku, S. Wei, C.-W. Shiau, C.-S. Chen, J. J. Pinzone, M. D. Ringel, and **C.-S. Chen** (2006) “Peroxisome Proliferator-Activated Receptor γ -Independent Repression of Prostate-Specific Antigen Expression by Thiazolidinediones in Prostate Cancer Cells” *Mol Pharmacol*, 69, 1564-1570
140. P.-H. Tseng, Y.-C. Wang, S.-C. Weng, J.-R. Weng, C.-S. Chen, R. W. Brueggemeier, C. L. Shapiro, C.-Y. Chen, S. E. Dunn, M. Pollak, and **C.-S. Chen** (2006) “Overcoming trastuzumab resistance in HER2-overexpressing breast cancer cells by using a novel celecoxib-derived phosphoinositide-dependent kinase-1 inhibitor” *Mol. Pharmacol.*, 70, 1534-1541
141. H.-Y. Lin, C.-S. Chen, S.-P. Lin, J.-R. Weng, and **C.-S. Chen** (2006) “Targeting Histone Deacetylase in Cancer Therapy” *Med. Res. Rev.*, 26, 397-413
142. J.-R. Weng, C.-Y. Chen, J. J. Pinzone, M.D. Ringel, and **C.-S. Chen** (2006) “Beyond PPAR- γ Signaling. The Multi-Facets of the Antitumor Effect of Thiazolidinediones” *Endocrine-Related Cancer*, 13, 401-413
143. J. W. Huang, C.-W. Shiau, J. Yang, D.-S. Wang, H.-C. Chiu, C.-Y. Chen, and **C.-S. Chen** (2006) “Development of Small-Molecule Cyclin D1-Ablative Agents” *J. Med. Chem.*, 49, 4684-4689
144. S. K. Kulp, C.-S. Chen, D. Wang, C.-Y. Chen, and **C.-S. Chen** (2006) “Antitumor effects of a novel phenyl-butyrate-based histone deacetylase inhibitor, (S)-HDAC-42, in prostate cancer” *Clin. Cancer Res.*, 12, 5199-5206
145. A. Yacoub, M. A. Park, D. Hanna, Y. Hong, C. Mitchell, A. P. Pandya, H. Harada, G. Powis, **C.-S. Chen**, C. Koumenis, S. Grant, and P. Dent (2006) “OSU-03012 promotes caspase-independent but PERK-, cathepsin B-, BID-, and AIF-dependent killing of transformed cells” *Mol. Pharmacol.* 70, 589-603
146. Z. Tong, X. Wu, **C.-S. Chen**, and J. P. Kehrer (2006) “Cytotoxicity of a non-cyclooxygenase-2 inhibitor derivative of celecoxib in non-small-cell lung cancer A549 cells” *Lung Cancer* 52, 117-124
147. P. Pyrko, N. Soriano, A. Kardosh, Y.-T. Liu, J. Uddin, N. A. Petasis, F. M. Hofman, **C.-S. Chen**, T. C. Chen, and A. H. Schönthal (2006) “Downregulation of survivin expression and concomitant induction of apoptosis by celecoxib and its non-cyclooxygenase-2-inhibitory analog, dimethyl-celecoxib (DMC), in tumor cells *in vitro* and *in vivo*” *Mol. Cancer* 5:19
148. R. E. Teresi, C.-W. Shiau, **C.-S. Chen**, V. K. Chatterjee, K. A. Waite, and C. Eng (2006) “Increased PTEN expression due to transcriptional activation of PPAR γ by Lovastatin and Rosiglitazone” *Int. J. Cancer*, 118, 2390-2398
149. J. Li, J. Zhu, W. S. Melvin, T. S., Bekaii-Saab, **C.-S. Chen**, P. Muscarella (2006) “A structurally optimized celecoxib derivative inhibits human pancreatic cancer cell growth” *J. Gastrointest. Surg.* 10, 207-214
150. K. K. Chan, P. Chen, Z. Xie, S. K. Kulp, C.-S. Chen, J. M. Covey (2006) “Pharmacokinetics of Akt inhibitor NSC 728209 in the rat by LC/MS/MS method”, *EJC Supplements*, 4, 182-182

2005

151. C.-W. Shiau, C.-C. Yang, S. K. Kulp, K.-F. Chen, J.-W. Huang, and **C.-S. Chen** (2005) “Thiazolidinediones mediates apoptosis in prostate cancer cells, in part, via the inhibition of Bcl-xL/Bcl-2 functions independently of PPAR γ ” *Cancer Res.*, 65, 1561-1569

152. P.-H. Tseng, H.-P. Lin, J. Zhu, K.-F. Chen, E. M. Hade, D. C. Yang, J.C. Byrd, M. Grever, K. Johnson, B. J. Druker, and **C.-S. Chen** (2005) “synergistic interactions between imatinib mesylate and the novel phosphoinositide-dependent kinase-1 inhibitor OSU-03012 in overcoming imatinib mesylate resistance” *Blood*, 105, 4021-4027
153. J.-W. Huang, C.-W. Shiau, Y.-T. Yang, S. K. Kulp, K.-F. Chen, R. W. Brueggemeier, C. L. Shapiro, and **C.-S. Chen** (2005) “Peroxisome Proliferator-Activated Receptor γ -Independent Ablation of Cyclin D1 by Thiazolidinediones and Their Derivatives in Breast Cancer Cells” *Mol Pharmacol*, 67, 1342-1348
154. C.-S. Chen, S.-C. Weng, P.-H. Tseng, H.-P. Lin, and **C.-S. Chen** (2005) “Histone acetylation-independent effect of histone deacetylase inhibitors on Akt through the reshuffling of protein phosphatase 1 complexes” *J. Biol. Chem.*, 280, 38879-38887
155. Q. Lu, D.-S. Wang, C.-S. Chen, Y.D. Hu, and **C.-S. Chen** (2005) “Structure-based optimization of phenylbutyrate-derived histone deacetylase inhibitors” *J. Med. Chem.* 48, 5530-5535
156. S. K. Kulp, K.-F. Chen, and **C.-S. Chen** (2005) “Chemotherapy for prostate cancer” in Prostate Cancer. Basic mechanisms and Therapeutic Approaches (Ed., C. Chang) World Scientific, New Jersey, pp. 365-382
157. A. J. Johnson, L. L. Smith, J. Zhu, N. A. Heerema, S. Jefferson, A. Mone, M. Grever, **C.-S. Chen**, J. C. Byrd (2005) “A novel celecoxib derivative, OSU03012, induces cytotoxicity in primary CLL cells and transformed B-cell lymphoma cell line via a caspase- and Bcl-2-independent mechanism” *Blood*, 105, 2504-2509
158. H. Ding, C. Han, J. Zhu, **C.-S. Chen**, and S. M. D’Ambrosio (2005) “Celecoxib derivatives induce apoptosis via the disruption of mitochondrial membrane potential and activation of caspase 9” *Int. J. Cancer*, 113, 803-810
159. O.S. Gardner, C.-W. Shiau, **C.-S. Chen**, and L.M. Graves (2005) “PPAR γ -independent activation of p38 MAPK by thiazolidinediones involves calcium/calmodulin-dependent protein kinase II and protein kinase R: correlation with endoplasmic reticulum stress” *J. Biol. Chem.*, 280, 10109-10118
160. J.E. Kucab, C. Lee, **C.-S. Chen**, J. Zhu, C. B. Gilks, M. Cheang, D. Huntsman, E. Yorida, J. Emerman, M. Pollak, S. E. Dunn (2005) “Celecoxib analogues disrupt Akt signaling, which is commonly activated in primary breast tumours” *Breast Cancer Res.* 2005, 7:R796-R807
161. Z. Tong, X. Wu, D. Ovcharenko, J. Zhu, **C.-S. Chen**, J. P. Kehrer (2005) “Neutrophil gelatinase associated lipocalin as a survival factor” *Biochem. J.* 391, 441-448

2004

162. S. K. Kulp, Y.-T. Yang, C.-C. Hung, K.-F. Chen, J.-P. Lai, P.-H. Tseng, J. W. Fowble, P. J. Ward, and **C.-S. Chen** (2004) “3-phosphoinositide-dependent protein kinase-1/Akt signaling represents a major cyclooxygenase-2-independent target for celecoxib in prostate cancer cells” *Cancer Res.*, 64, 1444-1451
163. Q. Lu, Y.-T. Yang, C.-S. Chen, M. Davis, J. C. Byrd, M. R. Etherton, A. Umar, and **C.-S. Chen** (2004) “Zn²⁺-Chelating Motif-Tethered Short-Chain Fatty Acids as a Novel Class of Histone Deacetylase Inhibitors” *J. Med. Chem.*, 47, 467-474
164. J. Zhu, J.-W. Huang, P.-H. Tseng, Y.-T. Yang, J. Fowble, C.-W. Shiau, Y.-J. Shaw, S. K. Kulp, and **C.-S. Chen** (2004) “From the cyclooxygenase-2 inhibitor celecoxib to a novel class of 3-phosphoinositide-dependent protein kinase-1 inhibitors” *Cancer Res.* 64, 4309-4318
165. P.-H. Tseng, H.-P. Lin, H. Hu, C. Wang, M. X. Zhu, and **C.-S. Chen** (2004) “The canonical transient receptor potential 6 channel as a putative phosphatidylinositol 3,4,5-trisphosphate-sensitive calcium entry system” *Biochemistry*, 43, 11701-11708
166. Y.-J. Shaw, Y.-T. Yang, J. B. Garrison, N. Kyprianou, and **C.-S. Chen** (2004) “Pharmacological

exploitation of the $\alpha 1$ -adrenoreceptor antagonist doxazosin to develop a novel class of antitumor agents that block intracellular Akt activation” *J. Med. Chem.*, **47**, 4453-4462

167. H.-P. Lin, S. K. Kulp, P.-H. Tseng, Y.-T. Yang, C.-S. Chen, and **C.-S. Chen** (2004) “Growth-inhibitory effects of celecoxib in human umbilical vein endothelial cells are mediated through G1 arrest via multiple signaling mechanisms” *Mol. Cancer Ther.*, **3**, 1671-1680
168. R. Roychowdhury, R. A. Baiocchi, S. Vourganti, D. Bhatt, B.W. Blaser, A. G. Freud, J. Chou, C.-S. Chen, J. J. Xiao, M. Parthun, K. K. Chan, C.F. Eisenbeis, A. K. Ferketich, M. R. Grever, **C.-S. Chen**, M.A. Caligiuri (2004) “Selective efficacy of depsipeptide in a xenograft model of Epstein-Barr virus-positive lymphoproliferative disorder” *J. Natl. Cancer Inst.* **96**, 1447-1457

2003

169. C.-C. Yang, H.-P. Lin, C.-S. Chen, Y.-T. Yang, P.-H. Tseng, V. M. Rangnekar, and **C.-S. Chen** (2003) “Bcl-xL Mediates a Survival Mechanism Independent of the Phosphoinositide 3-Kinase/Akt Pathway in Prostate Cancer Cells” *J. Biol. Chem.*, **278**, 25872-25878
170. S. K. Kulp, X. Song, H.-P. Lin, A. Johnson, and **C.-S. Chen** (2003) “COX-2 in Cancer, a Role yet to be Defined” Proceedings of the 5th International Congress on Essential Fatty Acids and Ecosanoids”, AOAC Press, Champaign, IL, p155-168

2002

171. X. Song, H.-P. Lin, A. J. Johnson, P.-H. Tseng, Y.-T. Yang, S. K. Kulp, and **C.-S. Chen** (2002) “Cyclooxygenase-2, player or spectator in cyclooxygenase-2 inhibitors-induced apoptosis in prostate cancer cells” *J. Natl. Cancer Inst.*, **94**, 585-591
172. J. Zhu, X. Song, H.-P. Lin, S. Yan, V. E. Marquez, and **C.-S. Chen** (2002) “Using cyclooxygenase-2 inhibitors as molecular platforms to develop a new class of apoptosis-inducing agents” *J. Natl. Cancer Inst.*, **94**, 1745-1757
173. A. J. Johnson, A.-L. Hsu, H.-P. Lin, X. Song, and **C.-S. Chen** (2002) “The Cyclooxygenase-2 Inhibitor Celecoxib Perturbs Intracellular Calcium by Inhibiting Endoplasmic Reticulum Ca^{2+} -ATPases. A Plausible Link with Its Antitumor Effect and Cardiovascular Risks” *Biochem. J.*, **366**, 831-837

2001

174. T.-T. Ching, A.-L. Hsu, A. J. Johnson, and **C.-S. Chen** (2001) “Phosphoinositide 3-kinase facilitates antigen-stimulated Ca^{2+} influx in RBL-2H3 mast cells via a phosphatidylinositol 3,4,5-trisphosphate-sensitive Ca^{2+} entry mechanism” *J. Biol. Chem.*, **276**, 14814-14820
175. T.-T. Ching, H.-P. Lin, C.-C. Yang, M. Oliveira, P.-J. Lu, and **C.-S. Chen** (2001) “Specific binding of the C-terminal Src homology 2 domain of the p85 α subunit of phosphoinositide 3-kinase to phosphatidylinositol 3,4,5-trisphosphate. Localization and engineering of the phosphoinositide-binding motif” *J. Biol. Chem.*, **276**, 43932-43938
176. A. J. Johnson, X. Song, A.-L. Hsu, and **C.-S. Chen** (2001) “Apoptosis signaling pathways mediated by cyclooxygenase-2 inhibitors in prostate cancer cells” *Adv. Enzyme Regul.*, **41**, 221-235
177. A. Gagnon, P. Dods, N. Roustan-Delattour, **C.-S. Chen**, and A. Sorisky (2001) “Phosphatidylinositol 3,4,5-trisphosphate is required for IGF-1-mediated survival of 3T3-L1 preadipocytes” *Endocrinology*, **142**, 205-212
178. D.-S. Wang, A. L. Hsu, and **C.-S. Chen** (2001) “A phosphatidylinositol 3,4,5-trisphosphate analogue with low serum protein-binding affinity” *Bioorg. Med. Chem.*, **9**, 133-139
179. D.-S. Wang, and **C.-S. Chen** (2001) “Synthesis and biological evaluations of L-a-phosphatidyl-D-3-deoxy-3-heteromethyl-myoinositol as PI 3-kinase inhibitors” *Bioorg. Med. Chem.*, **9**, 3165-3172

180. J. R. Halstead, M. Roefs, C. D. Ellison, S. D'Andrea, **C.-S. Chen**, C. S. D'Santos, N. Divecha (2001) "A novel pathway of cellular phosphatidylinositol(3,4,5)-trisphosphate synthesis is regulated by oxidative stress" *Curr. Biol.*, 11, 386-395
181. H. Mansour, D.-S. Wang, **C.-S. Chen**, and G. Zografli (2001) "Comparison of bilayer and monolayer properties of phospholipid systems containing dipalmitoylphosphatidylglycerol and dipalmitoylphosphatidylinositol" *Langmuir*, 17, 6622-6632

2000

182. A.-L. Hsu, T.-T. Ching, D.-S. Wang, X. Song, V. M. Rangnekar, and **C.-S. Chen** (2000) "The Cyclooxygenase-2 inhibitor celecoxib induces apoptosis by blocking Akt activation in human prostate cancer cells independently of Bcl-2" *J. Biol. Chem.*, 275, 11397-11403 (citations: 733)
183. A.-L. Hsu, T.-T. Ching, G. Sen, D.-S. Wang, S. Bondada, K. S. Authi, and **C.-S. Chen** (2000) "Novel function of phosphoinositide 3-kinase in T-cell Ca²⁺ signaling. A phosphatidylinositol 3,4,5-trisphosphate-mediated Ca²⁺ entry mechanism" *J. Biol. Chem.*, 275, 16242-16250 (
184. D.-S. Wang, T.-T. Ching, J. St. Pyrek, and **C.-S. Chen** (2000) "Biotinylated phosphatidylinositol 3,4,5-trisphosphate as affinity ligand" *Anal. Biochem.*, 280, 301-307

1999

185. P.-J. Lu, D. Wang, K.-M. Lin, H. L. Yin, and **C.-S. Chen** (1999) "Differential recognition of phosphoinositides by actin regulating proteins and its physiological implications" in *Phosphoinositides. Chemistry, Biochemistry, and Biomedical Applications* (Bruzik, K. S., ed.) ACS Symposium Series 718, American Chemical Society, Washington, D.C., pp38 – 54
186. T.-T. Ching, D. Wang, A.-L. Hsu, P.-J. Lu, and **C.-S. Chen** (1999) "Identification of multiple phosphoinositide-specific phospholipases D as new regulatory enzymes for phosphatidylinositol 3,4,5-trisphosphate" *J. Biol. Chem.*, 274, 8611-8617
187. A. Gagnon, **C.-S. Chen**, and A. Sorisky (1999) "Activation of protein kinase B and induction of adipogenesis by insulin in 3T3-L1 preadipocytes. Contribution of phosphoinositide-3,4,5-trisphosphate versus phosphoinositide-3,4-bisphosphate" *Diabetes*, 48, 691-698
188. M. Sarkari, B. L. Knutson, and **C.-S. Chen** (1999) "Enzymatic catalysis in cosolvent modified pressurized organic solvents" *Biotechnol. Bioeng.* 65, 258-264

1998

189. P.-J. Lu, A.-L. Hsu, D. Wang, H. Y. Yan, H. L. Yin, and **C.-S. Chen** (1998) "Phosphoinositide 3-kinase in rat liver nuclei" *Biochemistry*, 37, 5738-5745
190. P.-J. Lu, A.-L. Hsu, D. Wang, and **C.-S. Chen** (1998) "Phosphatidylinositol 3,4,5-trisphosphate triggers platelet aggregation by activating Ca²⁺ influx" *Biochemistry*, 37, 9776-9783
191. A.-L. Hsu, P.-J. Lu, and **C.-S. Chen** (1998) "Regulation of nuclear calcium uptake by inositol phosphates and external calcium" *Biochem. Biophys. Res. Commun.* 243, 653-656
192. D. Wang, A.-L. Hsu, X. Song, C.-M. Chiou, and **C.-S. Chen** (1998) "Molecular recognition at the PtdIns(3,4,5)P₃-binding site. Studies with the permuted isomers of phosphatidylinositol trisphosphate" *J. Org. Chem.*, 63,5430-5437
193. Y. S. Bae, L. G. Cantley, **C.-S. Chen**, S.-R. Kim, K.-S. Kwon, and S. G. Rhee (1998) "Activation of phospholipase C- γ by phosphatidylinositol 3,4,5-trisphosphate" *J. Biol. Chem.*, 273, 4465-4469
194. M. Chou, W. Hou, J. Johnson, L. K. Graham, M. H. Lee, **C.-S. Chen**, A. C. Newton, B. S. Schaffhausen, A. Toker (1998) "Regulation of protein kinase C zeta by PI 3-kinase and PDK-1" *Curr. Biol.*, 8, 1069-1077
195. H. Banfic, X. Tang, I. H. Batty, C.P. Downes, **C.-S. Chen**, and S. E. Rittenhouse (1998) "A novel integrin-activated pathway forms PKB/Akt-stimulatory PtdIns(3,4)P₂ via PtdIns3P in platelets" *J.*

Biol. Chem., 273:13-16

196. Venkataraman, P.-J. Lu, **C.-S. Chen**, J. C. Cambier, and S. Bondada (1998) "CD72 mediated B cell activation involves recruitment of CD19 and activation of phosphatidylinositol 3-kinase" *Eur. J. Immunol.*, 28, 3003-3016

1997

197. P.-J. Lu, and **C.-S. Chen** (1997) "Selective recognition of phosphatidylinositol 3,4,5-trisphosphate by a synthetic peptide" *J. Biol. Chem.*, 272, 466-472
198. M. P. Derman, A. Toker, J. H. Hartwig, K. Spokes, J. R. Falck, **C.-S. Chen**, L. C. Cantley, and L. G. Cantley (1997) "The lipid products of phosphoinositide 3-kinase increase cell motility through protein kinase C" *J. Biol. Chem.*, 272, 6465-6470
199. K.-M. Lin, E. Weneigeme, P.J. Lu, **C.-S. Chen**, and H. L. Yin (1997) "Gelsolin binding to phosphatidylinositol 4,5-bisphosphate is modulated by calcium and pH" *J. Biol. Chem.*, 272, 20443-20450
200. L.E. Rameh, A. K. Arvidsson, K. L. Carraway III, A. D. Couvillon, G. Rathbun, A. Crampton, B. VanReterghem, M. P. Czech, K. S. Ravichandran, S. J. Burakoff, D.-S. Wang, **C.-S. Chen**, and L. C. Cantley (1997) "A comparative analysis of the phosphoinositide binding specificity of pleckstrin homology domains" *J. Biol. Chem.*, 272, 22059-22066

1996

201. C.-Y. Chen, V.F. Pang, and **C.-S. Chen** (1996) "Pathologic and biochemical modifications of renal functions in ibuprofen-induced interstitial nephritis" *Renal Failure*, 18, 31-40
202. C.-N. Chen, P.C. Wang, H.-F. Song, Y.C. Liu, and **C.-S. Chen** (1996) "Non-invasive detection of ibuprofen in vivo ¹³C-NMR signals in rats" *Chem. Pharm. Bull.* 44, 204-207
203. P.-J. Lu, W.-R. Shieh, and **C.-S. Chen** (1996) "Antagonistic effect of inositol pentakisphosphate on inositol trisphosphate receptor" *Biochem. Biophys Res. Comm.*, 220, 637-642
204. C. J. Sih, G. Girdaukas, **C.-S. Chen**, and J.C. Sih (1996) "Enzymatic resolutions of alcohols, esters, and nitrogen-containing compounds" in *Enzymatic Reactions in Organic Media* (A.M.P. Koskinen and A.M. Klivanov, eds.) pp94-139, Blackie Academic & Professional (An Import of Chapman & Hall), London
205. C. Q. Vu, P.-J. Lu, **C.-S. Chen**, and M. K. Jacobson (1996) "2'-Phospho-cyclic ADP-ribose, a calcium mobilizing agent derived from NADP" *J. Biol. Chem.*, 271, 4747-4754
206. D.-S. Wang, and **C.-S. Chen** (1996) "Synthesis of the D-3 series of phosphatidylinositol polyphosphates" *J. Org. Chem.*, 61, 5905-5910
207. P.-J. Lu, W.-R. Shieh, S. G. Rhee, H. L. Yin, and **C.-S. Chen** (1996) "Lipid products of phosphoinositide 3-kinase bind human profilin with high affinity" *Biochemistry*, 35, 14027-14034
208. W. S. Sossin, **C.-S. Chen**, A. Toker (1996) "Stimulation of an insulin receptor activates and down-regulates the Ca²⁺-independent protein kinase C, Apl II, through a wortmannin-sensitive signaling pathway in *Aplysia*" *J. Neurochem.*, 67, 220-228
209. P.-J. Lu and **C.-S. Chen** (1996) "Modulation of the inositol 1,4,5-trisphosphate receptor by inositol phosphates" *Phosphorus, Sulfur, and Silicon* Vol. 109-110, pp.325-328 (invited)

1995

210. C.-Y. Chen, and **C.-S. Chen** (1995) "Stereoselective disposition of ibuprofen in patients with compromised renal hemodynamics" *Br. J. Clin. Pharmacol.*, 40, 67-72
211. W.-R. Shieh, and **C.-S. Chen** (1995) "Preparation and characterization of a D-*myo*-inositol 1,4,5 trisphosphate-specific antibody" *Biochem. J.*, 311, 1009-1014
212. L. E. Rameh, **C.-S. Chen**, and L. C. Cantley (1995) "Phosphatidylinositol (3,4,5)P3 interacts with

SH2 domains and modulates PI 3-kinase association with tyrosine-phosphorylated proteins" *Cell*, 83, 821-830

213. A. Toker, C. Bachelot, **C.-S. Chen**, J.R. Falck, J.H. Hartwig, L.C. Cantley, and T.J. Kovacsovic (1995) "Phosphorylation of the platelet p47 phosphoprotein is mediated by the lipid products of phosphoinositide 3-kinase" *J. Biol. Chem.*, 270, 29525-29531

1994

214. C.-Y. Chen, and **C.-S. Chen** (1994) "Stereoselective disposition of ibuprofen in patients with renal dysfunction" *J. Pharmacol. Expt. Ther.*, 268, 590-594
215. D.-M. Gou, W.-R. Shieh, P.-J. Lu, and **C.-S. Chen** (1994) "D-*myo*-inositol 1,4,5-trisphosphate analogues as useful tools in biochemical studies of intracellular calcium mobilization" *Bioorg. Med. Chem.*, 2, 7-13
216. C.-Y. Chen, V. F. Pang, and **C.-S. Chen** "Assessment of ibuprofen-associated nephrotoxicity in renal insufficiency" *J. Pharmacol. Expt. Ther.*, 270, 1307-1312
217. P.-J. Lu, D.-M. Gou, W.-R, Shieh, and **C.-S. Chen** (1994) "Molecular interactions of endogenous D-*myo*-inositol phosphates with the intracellular Ins(1,4,5)P₃ recognition site" *Biochemistry*, 33, 11586-11597
218. D.-M. Gou, and **C.-S. Chen** (1994) "Synthesis of L- α -phosphatidyl-D-*myo*-inositol 3,4,5-trisphosphate, an important intracellular signaling molecule" *J. Chem. Soc. Chem. Comm.*, 2125-2126
219. M. Liscovitch, V. Chalifa, P. Pertiles, **C.-S. Chen**, and L. C. Cantley (1994) "Novel function of phosphatidylinositol 4,5-bisphosphate as a cofactor for brain membrane phospholipase D" *J. Biol. Chem.*, 269:21403-21406
220. D.-M. Gou, Y.-C. Liu, and **C.-S. Chen** (1994) "*Mucor meihei* lipase enantioselective transformation of methyl trans-b-phenyl glycidate with isobutyl alcohol" in *Preparative Biotransformation* (S.M. Roberts, ed) 5:1.2-5:1.8, John Wiley & Sons Ltd, New York
221. Ditullio, D., Anderson, D., **C.-S. Chen**, and C.J. Sih (1994) "L-Carnitine via enzyme-catalyzed oxidative kinetic resolution" *Bioorg. Med. Chem.*, 2, 415-420

1993

222. **C.-S. Chen**, D.-M. Gou, W.-R. Shieh, and Y.-C. Liu (1993) "Biocatalytic resolution of DL-propranolol. A successful example of Computer-Aided substrate design" *Tetrahedron*, 49, 3281-3290
223. W.-R. Shieh, and **C.-S. Chen** (1993) "Purification and characterization of novel "2-aryl-propionyl-CoA epimerase" from rat liver cytosol and mitochondria" *J. Biol. Chem.*, 268, 3487-3493
224. W.-R. Shieh, Da-Ming Gou, Y.-C. Liu, **C.-S. Chen**, and C.-Y. Chen (1993) "¹³C NMR study on ibuprofen metabolism in isolated rat liver mitochondria" *Anal. Biochem.*, 212, 143-149
225. D.-M. Gou, Y.-C. Liu, and **C.-S. Chen** (1993) "A practical chemoenzymatic synthesis of the taxol C-13 side chain N-benzoyl-(2R,3S)-3-phenylisoserine" *J. Org. Chem.*, 58, 1287-1289

1992

226. D.-M. Gou, and **C.-S. Chen** (1992) "An efficient route to D-*myo*-inositol 1,3,4-triphosphate and D-*myo*-inositol 1,3,4,5-tetrakisphosphate" *Tetrahedron Lett.*, 33, 721-724
227. D.-M. Gou, Y.-C. Liu, and **C.-S. Chen** (1992) "An efficient chemoenzymatic access to optically active *myo*-inositol polyphosphates" *Carbohydr. Res.*, 234, 51-64
228. **C.-S. Chen**, and Y.-C. Liu (1992) "Stereochemical recognition in lipase catalysis" *J. Jpn. Oil Chem. Soc.*, 41, 724-733 (invited)
229. C.-Y. Chen, W.-R. Shieh, and **C.-S. Chen** (1992) "Clinical implication of using racemic drugs", *Clin.*

Res. and Regul. Affairs, 9, 247-259 (I can't find it)

1991

230. **C.-S. Chen**, and Y.-C. Liu (1991) "Amplification of enantioselectivity in biocatalyzed kinetic resolution of racemic alcohols" *J. Org. Chem.*, 56, 1966-1968
231. C.-Y. Chen, P.-H. Lu, W.-R. Shieh, S. Harriman, and **C.-S. Chen** (1991) "Metabolic stereoisomeric inversion of ibuprofen in mammals" *Biochim. Biophys. Acta*, 1078, 411-417
232. C.-Y. Chen, P.-H. Lu, and **C.-S. Chen** (1991) "Metabolic inversion of stereoisomeric ibuprofen in man" *J. Formosan Med. Assoc.*, 90, 437-442
233. W.-R. Shieh, D.-M. Gou, and **C.-S. Chen** (1991) "Computer-aided substrate design for biocatalysis: An enzymatic access to optically active propranolol" *J. Chem. Soc. Chem. Commun.* pp651-653

1990

234. **C.-S. Chen**, D. Copeland, S. Harriman, and Y.-C. Liu (1990) "Preparation of enantiomerically-active deuterium-labelled ibuprofen" *J. Labelled Compds & Radiopharmaceuticals*, 28, 1017-1024
235. **C.-S. Chen**, Y.-C. Liu, and M. Marsella (1990) "A convenient chemoenzymatic synthesis of (R)- and (S)-(Chloromethyl)oxirane" *J. Chem. Soc. Perkin Trans. 1* pp2559-2561
236. Z.-W. Guo, S.-H. Wu, **C.-S. Chen**, G. Girdaukas, and C. J. Sih (1990) "Sequential biocatalytic kinetic resolutions" *J. Am. Chem. Soc.*, 112, 4942-4945
237. **C.-S. Chen**, T. Chen, and W.-R. Shieh (1990) "Metabolic stereoisomeric inversion of 2-arylpropionic acids, On the mechanism of ibuprofen epimerization in rats" *Biochim. Biophys. Acta*, 1033, 1-6

1989

238. **C.-S. Chen**, and C. J. Sih (1989) "General aspects and optimization of enantioselective biocatalysis in organic solvents: The use of lipases" *Angew. Chem. Int. Ed. Engl.*, 28, 695-707 (citations: 656)
239. **C.-S. Chen**, and Y.-C. Liu (1989) "A chemoenzymatic access to optically active 1,2-epoxides" *Tetrahedron Lett.*, 30, 7165-7168
240. Y.-C. Liu, and **C.-S. Chen** (1989) "An efficient synthesis of optically active D-*myo*-inositol 1,4,5 triphosphate" *Tetrahedron Lett.*, 30, 1617-1620

1987

241. **C.-S. Chen**, Wu, S.-H., Girdaukas, G., and C. J. Sih (1987) "Quantitative analyses of biochemical kinetic resolution of enantiomers. II. Enzyme-catalyzed esterifications in water-organic solvent biphasic systems" *J. Am. Chem. Soc.*, 109, 2812-2817 (citations: 318)

1986

242. C. J. Sih, W.-R. Shieh, **C.-S. Chen**, S.-H. Wu, and G. Girdaukas. (1986) "Biochemical asymmetric catalysis" *Ann. New York Aca. Sci.*, 471, 239-254
243. Q.-M. Gu, **C.-S. Chen**, and C. J. Sih (1986) "A facile enzymatic resolution process for the preparation of (+)-S-2-(6-methoxy-2-naphthyl)propionic acid (Naproxen)" *Tetrahedron Lett.*, 27, 1763-1766

1985

244. Y.-F. Wang, **C.-S. Chen**, G. Girdaukas, and C. J. Sih (1985) "Extending the applicability of esterases of low enantioselectivity in asymmetric synthesis" in "Enzymes in organic synthesis" Battersby, A.R., ed., Pitman, London.
245. S.-H. Wu, L.Q. Zhang, **C.-S. Chen**, G. Girdaukas, and C. J. Sih (1985) "Bifunctional chiral synthons via biochemical methods. 7. Optically active 2,2'-dihydroxy-1,1'-binaphthyl" *Tetrahedron Lett.*, 26, 4323-4326
246. Y. F. Yang, **C.-S. Chen**, G. Girdaukas, C. J. Sih (1985) "Extending the applicability of esterases of enantioselectivity in asymmetric-synthesis" Ciba Foundation Symposia, 111,128-145

1984

247. **C.-S. Chen**, B.N. Zhou, W.-R. Shieh, F. VanMiddlesworth, A.S. Gopala,, and C. J. Sih (1984) "Stereochemical control of yeast reductions. 2. Quantitative treatment of the kinetics of competing enzyme system for a single substrate" *Bioorg. Chem.*, 12, 98-117
248. Y. F. Wang, , **C.-S. Chen**, G. Girdaukas, and C. J. Sih (1984) "Bifunctional chiral synthons via biochemical methods. 3. Optical purity enhancement in enzymic asymmetric catalysis" *J. Am. Chem. Soc.*, 106, 3695-3696
249. C. J. Sih, and **C.-S. Chen**. (1984) "Microbial asymmetric catalysis - Enantioselective reduction of ketones" *Angew. Chem. Int. Ed. Engl.*, 23, 570-578
250. C. J. Sih., B.N. Zhou, A.S. Gopalan, W.-R. Shieh, **C.-S. Chen**, Girdaukas, G., and VanMiddlesworth, F. (1984) "Enantioselective reduction of β -keto esters by bakers' yeast" *Ann. New York Aca. Sci.*, 434, 186-193

1982

251. **C.-S. Chen**, Y. Fujimoto, G. Girdaukas, C. J. Sih (1982) "Quantitative analyses of biochemical kinetic resolutions of enantiomers" *J. Am. Chem. Soc.*, 104, 7294-7299 (citations: 2,252)
252. Y. Fujimoto, **C.-S. Chen**, Z. Szelecky, D. DiTullio, and C. J. Sih (1982) "Microbial degradation of the phytosterol side chain. 1. Enzymatic conversion of 3-oxo-24-ethyl-cholest-4-en-26-oic acid into 3-oxochol-4-en-24-oic acid and androst-4-ene-3,17-dione" *J. Am. Chem. Soc.*, 104, 4718-4720
253. Y. Fujimoto, **C.-S. Chen**, A. S. Gopalan, and C. J. Sih (1982) "Microbial degradation of the phytosterol side chain. 2. Incorporation of $\text{NaHC}^{14}\text{O}_3$ onto the C-28 position" *J. Am. Chem. Soc.*, 104, 4720-4722
254. **C.-S. Chen**, S. H. Wu, and K. T. Wang (1982) "Determination of esterase activity of papain by high performance liquid chromatography" *J. Chromatogr.*, 248, 451-455
255. C. J. Sih, **C.-S. Chen**, G. Girdaukas, and B. N. Zhou (1982) "Design and synthesis of optically pure compounds using microbial systems" in "The biology basis of new developments in biotechnology" Hollaender, A., Laskin, A., and Roger, P., eds., Plenum Press, N.Y.

1981

256. **C.-S. Chen**, Y. Fujimoto, and C. J. Sih (1981) "Bifunctional Chiral Synthons via Microbiological Methods. 1. Optically active 2,4-dimethylglutaric acid monomethyl esters." *J. Am. Chem. Soc.*, 103, 3580-3582

Licenses, Awarded Patents and Patent Applications**A. Licenses**

The PDK-1 inhibitor OSU-03012 (AR12) and the HDAC inhibitors OSU-HDAC42 (AR42) have been licensed to Arno Therapeutics for clinical development.

B. Granted US Patents

1	2016.10.04	US 9,457,031	Antibacterial protein kinase inhibitors
2	2015.11.03	US 9,174,951	Glucose transporter inhibitors
3	2015.10.13	US 9,156,790	Anticancer P21-activated kinase inhibitors
4	2015.08.25	US 9,115,090	Zn ²⁺ -chelating motif-tethered short-chain fatty acids as a novel class of histone deacetylase inhibitors
5	2015.07.14	US 9,079,899	Anti-staphylococcal celecoxib derivatives
6	2014.09.30	US 8,846,748	Indolyl or indolynyl hydroxamate compounds

7	2014.06.03	US 8,741,944	Anti-infective agents against intracellular pathogens
8	2014.03.25	US 8,680,133	Alkyl indole-3-carbinol-derived antitumor agents
9	2014.02.25	US 8,658,647	Integrin-linked kinase inhibitors
10	2014.01.21	US 8,633,161	Therapeutic agents for the treatment of leukemia
11	2013.11.21	US 8,580,827	Anti-Francisella agents
12	2013.10.01	US 8,546,441	PDK-1/AKT signaling inhibitors
13	2013.10.01	US 8,546,397	DNA methylation inhibitors
14	2013.09.24	US 8,541,460	PDK-1/Akt signaling inhibitors
15	2013.06.11	US 8,461,362	Protein phosphatase 2A-activating agents
16	2013.05.21	US 8,445,483	Anti-infective agents against intracellular pathogens
17	2013.02.26	US 8,383,656	Thiazolidinedione energy restriction-mimetic agents
18	2013.02.19	US 8,377,948	Antitumor agents and methods of their use
19	2013.01.29	US 8,362,071	Antiadhesion agents
20	2012.11.27	US 8,318,812	Therapeutic agents for the treatment of lymphoid malignancies
21	2012.11.27	US 8,318,808	Zn.sup.2+chelating motif-tethered short-chain fatty acids as a novel class of histone deacetylase inhibitors
22	2012.11.13	US 8,309,768	FTY720-derived anticancer agents
23	2012.11.13	US 8,309,582	Small molecule Bcl-XI/Bcl-2 binding inhibitors
24	2012.04.10	US 8,153,680	Alkyl indole-3-carbinol-derived antitumor agents
25	2011.12.20	US 8,080,574	PDK-1/Akt signaling inhibitors
26	2011.10.18	US 8,039,502	Anti-infective agents against intracellular pathogens
27	2011.07.05	US 7,973,062	Androgen receptor-ablative agents
28	2010.10.05	US 7,807,705	Potent indole-3-carbinol-derived antitumor agents
29	2009.08.18	US 7,576,116	PDK-1/Akt signaling inhibitors
30	2009.07.28	US 7,566,787	Small molecule cyclin D1 ablative agents
31	2006.04.11	US 7,026,346	Compounds and methods for inducing apoptosis in proliferating cells
32	2000.05.30	US 6,068,986	Antibodies specific for d-myo-inositol 1,4,5-trisphosphate and the enzyme-linked immunosorbent assay of d-myo-inositol 1,4,5-trisphosphate
33	2000.02.01	US 6,020,174	Chemoenzymatic synthesis of the taxol C-13 side chain N-benzoyl- (2R,3S)-Phenylisoserine
34	1998.08.25	US 5,798,447	Antibodies specific for D-myo-inositol 1, 4, 5-trisphosphate and the enzyme-linked immunosorbent assay of D-myo-inositol 1, 4, 5-trisphosphate
35	1995.02.28	US 5,393,912	D-myo-inositol 1,4,5-trisphosphate analogues
36	1994.08.02	US 5,334,534	Enzymatic preparation of optically active propanolol

			and .beta.-adrenergic blockers using esterase
	1993.11.20	US 5,260,472	Efficient chemoenzymatic synthesis of D-myo-inositol 1,4,5-triphosphate, D-myo-inositol 1,3,4-triphosphate, and D-myo-inositol 1,3,4,5-tetraphosphate

Patent Application	Title
US 20150258100 A1	Antibacterial protein kinase inhibitors
US 20150150832 A1	Methods for suppressing cancer-related cachexia
US 20140364477 A1	Indolyl or indolanyl hydroxamate compounds
US 20140031388 A1	Akt inactivation by tocopheryl derivatives
US 20100273871 A1	Anticancer tocopheryl succinate derivatives
US 20100168184 A1	Small molecule bcl-x1/bcl-2 binding inhibitors
US 20090170865 A1	Treatment of Prostate Cancer with Angiogenesis-Targeting Quinazoline-Based Anti-Cancer Compounds
US 20080009545 A1	Anticancer agents
US 20070225373 A1	Zn ²⁺ -Motif-Tethered Short-Chain Fatty Acids as a Novel Class of Histone Deacetylase