Ching-Hsien Chen, Ph.D.

Clinical Interests

Dr. Chen has a passion for understanding and improving the treatment of cancer and fibrosis. She has established close collaborations with physician scientists to discover useful, novel biomarkers that stratify clinicopathological subtypes of solid tumors and fibrosis. These biomarkers are developed with the goal to predict treatment outcomes of patients with cancer or fibrosis undergoing clinical trials with combined inhibitors specifically targeting aberrant oncogenic signaling.

Research/Academic Interests

Dr. Chen's research interest lies in mechanism-based target identification and drug discovery in both cancer and fibrosis. Having extensive collaborations with physician scientists has allowed her to work on developing clinically relevant methods of ex-vivo expansion of primary cells. In collaboration with chemists, her team has developed a phospholipid retention approach which has yielded several useful patents and effective strategies to advance the treatment of intractable diseases.

Currently, the research foci of Dr. Chen's laboratory are 1) to discover potential therapeutic targets in both neoplastic and fibrotic diseases using integrated -omics data, genetic manipulations and pharmacological approaches; 2) to develop clinically viable methodologies for primary cell co-culture systems to study the molecular basis of cellular interaction and immune response. In addition, Dr. Chen is actively engaged in the discovery of novel therapeutics with improved or combinatorial efficacy by targeting aberrant cell signaling and metabolic pathways.

Title

Associate Professor, Department of Internal Medicine
Chancellor's Fellow, UC Davis

Specialty

Molecular Biology/Medicine, Peptide-based Therapeutics, Functional Proteomics

Department

Internal Medicine

Division

Nephrology
Pulmonary, Critical Care, and Sleep Medicine

Center/Program Affiliation

UC Davis Comprehensive Cancer Center

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Genome and Biomedical Sciences Building, Genome & Biomedical Sciences Facility, 451 Health Sciences Dr Davis, CA 95616
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Ching-Hsien Chen, Ph.D.

Languages

Chinese

Education

M.S., China Medical University, Taichung, Taiwan 2004
Ph.D., National Chung Hsing University, Taichung, Taiwan 2011
B.S., China Medical University, Taichung, Taiwan 2000

Fellowships

Internal Medicine/Cancer, National Taiwan University, Taipei, Taiwan 2011-2012
Internal Medicine/Cancer, UC Davis, Davis CA 2012-2016

Professional Memberships

American Association for Cancer Research
American Society of Nephrology
American Thoracic Society
Society for Redox Biology and Medicine

Honors and Awards

2021-22 Chancellor's Fellow, UC Davis, 2022
Outstanding Poster Award, Annual Kidney Research Symposium, UC Davis, 2017
ASN Kidney Week Travel Award, The American Society of Nephrology, 2016
TRDRP Postdoctoral Fellowship Award, UCOP, 2014
Internal Medicine Trainee Research Award, UC Davis, 2013, 2014

Select Recent Publications

To view a detailed list of Dr. Chen's publications, please click here.

Liu J, Yang DC, Zhang J, Hsu SW, Weiss RH, Chen CH. A Novel Renoprotective Strategy: Upregulation of PD-L1 Mitigates Cisplatin-Induced Acute Kidney Injury. Int J Mol Sci. 2021 Dec 10;22(24):13304. doi:10.3390/ijms222413304. PMID:34948109.

Yang DC, Gu S, Li JM, Hsu SW, Chen SJ, Chang WH, Chen CH. Targeting the AXL Receptor in Combating Smoking-related Pulmonary Fibrosis. Am J Respir Cell Mol Biol. 2021 Jun;64(6):734-746. doi:10.1165/rcmb.2020-0303OC. PMID:33730527.

Li JM, Yang DC, Oldham J, Linderholm A, Zhang J, Liu J, Kenyon NJ, Chen CH. Therapeutic targeting of argininosuccinate synthase 1 (ASS1)-deficient pulmonary fibrosis. Mol Ther. 2021 Apr 7;29(4):1487-1500. doi:10.1016/j.ymthe.2021.01.028. Epub 2021 Jan 26. PMID:33508432.

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Ching-Hsien Chen, Ph.D.

Liu J, Chen SJ, Hsu SW, Zhang J, Li JM, Yang DC, Gu S, Pinkerton KE, Chen CH. MARCKS cooperates with NKAP to activate NF-kB signaling in smoke-related lung cancer. Theranostics. 2021 Feb 19;11(9):4122-4136. doi:10.7150/thno.53558. PMID:33754052.

Li L, Yang DC, Chen CH. Metabolic reprogramming: A driver of cigarette smoke-induced inflammatory lung diseases. Free Radic Biol Med. 2021 Feb 1;163:392-401. doi:10.1016/j.freeradbiomed.2020.12.438. Epub 2020 Dec 30. PMID:33387604.

Yang DC, Chen CH. Potential New Therapeutic Approaches for Renal Cell Carcinoma. Semin Nephrol. 2020 Jan;40(1):86-97. doi:10.1016/j.semnephrol.2019.12.010. PMID:32130970.

Yang DC, Li JM, Xu J, Oldham J, Phan SH, Last JA, Wu R, Chen CH. Tackling MARCKS-PIP3 circuit attenuates fibroblast activation and fibrosis progression. FASEB J. 2019 Dec;33(12):14354-14369. doi:10.1096/fj.201901705R. Epub 2019 Oct 26. PMID:31661644.

Xu J, Chang WH, Fong LWR, Weiss RH, Yu SL, Chen CH. Targeting the insulin-like growth factor-1 receptor in MTAP-deficient renal cell carcinoma. Signal Transduct Target Ther. 2019 Jan 25;4:2. doi:10.1038/s41392-019-0035-z. PMID:30701095.

Chen CH, Fong LWR, Yu E, Wu R, Trott JF, Weiss RH. Upregulation of MARCKS in kidney cancer and its potential as a therapeutic target. Oncogene. 2017 Jun 22;36(25):3588-3598. doi:10.1038/onc.2016.510. Epub 2017 Feb 6. PMID:28166200.

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