

Stanford



Dean W. Felscher

Professor of Medicine (Oncology) and of Pathology
Medicine - Oncology

CONTACT INFORMATION

- **Alternate Contact**

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Bio

ACADEMIC APPOINTMENTS

- Professor, Medicine - Oncology
- Professor, Pathology
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute
- Faculty Fellow, Stanford ChEM-H

ADMINISTRATIVE APPOINTMENTS

- Co-Director Cancer Nanotechnology Program, Department of Radiology, Stanford School of Medicine, (2016- present)
- Director of Advanced Residency Training Program, Stanford University School of Medicine, (2018- present)
- Director of Translational Research and Applied Medicine, Department of Medicine, Stanford University School of Medicine, (2011- present)

HONORS AND AWARDS

- Elected Member, Association of American Physicians (2011)
- Translational Research Award, Burroughs Wellcome Trust (2005-2011)
- Elected Member, American Society of Clinical Investigation (2005)
- Clinical Investigator Award, Damon Runyon Foundation (2003-2008)
- Charles Carrington Prize, Stanford University (2002)

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PROFESSIONAL EDUCATION

- MD PhD, UCLA , Medicine/Molecular Biology (1992)
- BS, University of Chicago , Chemistry (1985)

LINKS

- Felsher Laboratory: http://med.stanford.edu/labs/dean_felsher/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My laboratory investigates how oncogenes initiate and sustain tumorigenesis. I have developed model systems whereby I can conditionally activate oncogenes in normal human and mouse cells in tissue culture or in specific tissues of transgenic mice. In particular using the tetracycline regulatory system, I have generated a conditional model system for MYC-induced tumors. I have shown that cancers caused by the conditional over-expression of the MYC proto-oncogene regress with its inactivation. Thus, even though cancer is a multi-step process, the inactivation of one oncogene can be sufficient to induce tumor regression. Now, I am using these model systems to address three questions:

1. How do oncogenes initiate tumorigenesis?
2. How does oncogene inactivation cause tumor regression?
3. How do tumors escape dependence on oncogenes?

CLINICAL TRIALS

- Molecular Analysis of Thoracic Malignancies, Recruiting
- Antibiotic Therapy With or Without G-CSF in Treating Children With Neutropenia and Fever Caused by Chemotherapy, Not Recruiting
- Perfusion CT Monitoring to Predict Treatment Efficacy in Renal Cell Carcinoma, Not Recruiting
- Phase 2 Study of Atorvastatin Safety and Antitumor Effects in Non-Hodgkin's Lymphoma, Not Recruiting

Teaching

COURSES

2018-19

- Gene Expression Profiling in Cancer: MED 256 (Spr)
- Translational Research and Applied Medicine: MED 121, MED 221 (Aut, Win, Spr)

2017-18

- Translational Research and Applied Medicine: MED 121, MED 221 (Aut, Win, Spr)

2016-17

- Translational Research and Applied Medicine: MED 121, MED 221 (Aut, Win, Spr)

2015-16

- Translational Research and Applied Medicine: MED 121 (Win, Spr)
- Translational Research and Applied Medicine: MED 221 (Aut, Win, Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Kayvon Pedram

Postdoctoral Faculty Sponsor

Anja Deutzmann, Arvin Gouw, Aida Hansen, Minsoon Kim, Siburu Kuruvilla, Christina Lee, Wadie Mahauad Fernandez

Postdoctoral Research Mentor

Anja Deutzmann, Arvin Gouw, Aida Hansen, Minsoon Kim, Siburu Kuruvilla, Christina Lee, Wadie Mahauad Fernandez

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cancer Biology (Phd Program)
- Immunology (Phd Program)
- Medicine (Masters Program)
- Oncology (Fellowship Program)

Publications

PUBLICATIONS

- **The MYC oncogene is a global regulator of the immune response** *BLOOD*
Casey, S. C., Baylot, V., Felsher, D. W.
2018; 131 (18): 2007–15
- **Oncogene KRAS activates fatty acid synthase, resulting in specific ERK and lipid signatures associated with lung adenocarcinoma** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Gouw, A. M., Eberlin, L. S., Margulis, K., Sullivan, D. K., Toal, G. G., Tong, L., Zare, R. N., Felsher, D. W.
2017; 114 (17): 4300-4305
- **MYC regulates the antitumor immune response through CD47 and PD-L1** *SCIENCE*
Casey, S. C., Tong, L., Li, Y., Do, R., Walz, S., FitzGerald, K. N., Gouw, A. M., Baylot, V., Guetgemann, I., Eilers, M., Felsher, D. W.
2016; 352 (6282): 227-231
- **MYC oncogene overexpression drives renal cell carcinoma in a mouse model through glutamine metabolism** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Shroff, E. H., Eberlin, L. S., Dang, V. M., Gouw, A. M., Gabay, M., Adam, S. J., Bellovin, D. I., Tran, P. T., Philbrick, W. M., Garcia-Ocana, A., Casey, S. C., Li, Y., Dang, et al
2015; 112 (21): 6539-6544
- **MYC through miR-17-92 Suppresses Specific Target Genes to Maintain Survival, Autonomous Proliferation, and a Neoplastic State.** *Cancer cell*
Li, Y., Choi, P. S., Casey, S. C., Dill, D. L., Felsher, D. W.
2014; 26 (2): 262-272

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