





## Amato J. Giaccia

Jack, Lulu and Sam Willson Professor, Professor of Radiation Oncology, Emeritus  
Radiation Oncology - Radiation and Cancer Biology

 NIH Biosketch available Online

 Curriculum Vitae available Online

### CONTACT INFORMATION

#### • Alternate Contact

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### Bio

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#### BIO

Professor of Radiation Oncology, Associate Chair for Research & Director of the Division of Radiation & Cancer Biology in the Department of Radiation Oncology. He also is the Director of Basic Science at the Stanford Cancer Institute and heads the Radiation Biology Program in Stanford's Cancer Center, and is Director of the Cancer Biology Interdisciplinary Graduate Program. He was awarded an American Cancer Society Junior Faculty Research Award and the Michael Fry Award from the Radiation Research Society for his outstanding contributions on understanding the molecular mechanisms of resistance promoted by the tumor microenvironment. Additionally, he was the recipient of the 2013 ASTRO Gold Medal. In 2015, he was awarded an NIH R35 Outstanding Investigator Award and was inducted into the National Academy of Medicine. He co-authored the sixth & seventh editions of the textbook, "Radiation Biology for the Radiologist," with Professor Eric Hall from Columbia. In addition, he is currently the "Jack, Lulu and Sam Willson Professor in Cancer Biology" in the Stanford University School of Medicine.

#### ACADEMIC APPOINTMENTS

- Professor Emeritus, Radiation Oncology - Radiation and Cancer Biology
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute

#### ADMINISTRATIVE APPOINTMENTS

- Graduate Group in Cancer Biology, Stanford University, (1992- present)
- Graduate Group in Biophysics, Stanford University, (1992- present)
- Assistant Professor, Stanford University, Department of Radiation Oncology, (1992-1999)
- Associate Professor, Stanford University, Department of Radiation Oncology, (1999-2003)
- Associate Professor (by courtesy), Stanford University, Department of Gynecology and Obstetrics, (2001-2003)
- Professor, Stanford University, Department of Radiation Oncology, (2003- present)
- Professor (by courtesy), Stanford University, Department of Gynecology & Obstetrics, (2003- present)
- Professor & Division Director, Stanford University, Department of Radiation Oncology, Division of Radiation & Cancer Biology, (2004- present)

- Director, Program in Cancer Biology, Stanford Cancer Center, (2005- present)
- Leader, Molecular Therapeutics Program, Stanford Cancer Center, (2011- present)
- Associate Chair, Research, Stanford University, Department of Radiation Oncology, (2011- present)
- Associate Director for Basic Science, Stanford Cancer Institute, (2012- present)

## **HONORS AND AWARDS**

- American Cancer Society Junior Faculty Research Award, Stanford University (1995)
- Howard Hughes Junior Faculty Award, Stanford University (1996)
- Michael Fry Research Awardee of the Radiation Research Society, Radiation Research Society (1997)
- John Yuhas Award (Excellence in Radiation Oncology, University of Pennsylvania), University of Pennsylvania (2000)
- Virginia Logan Lecture, Thomas Jefferson University (2003)
- Jack, Lulu and Sam Willson Endowed Professor of Cancer Biology, Stanford University (2006)
- MERIT Award, NIH (2010)
- ASTRO Gold Medal, American Society of Therapeutic Radiology and Oncology (2013)
- National Academy of Medicine, NAM (2015)
- Outstanding Investigator Award, NIH (2015)
- Excellence in Mentoring and Service Award, Stanford Biosciences (2016)

## **BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS**

- Editorial Board, International Journal of Radiation Biology (1995 - 2000)
- Associate Editor, Radiation Research, Official Journal of the Radiation Research Society (1998 - 2002)
- Associate Editor, International Journal of Radiation Biology (2000 - 2009)
- Editorial Board, International Journal of Radiation Oncology, Biology, Physics (2000 - 2010)
- Associate Editor, Cancer Biology and Therapy (2001 - present)
- Deputy Editor for Reviews and Senior Editor, Molecular Cancer Research (2002 - 2012)
- Associate Editor, Cancer Research (2003 - 2012)
- Foreign Associate Editor, Journal of Radiation Research, Official Journal of the Japan Radiation Research Society (2004 - 2009)
- Editorial Advisory Board, Current Cancer Therapy Reviews (2005 - present)
- Editorial Board, Peer J (2013 - present)
- Editorial Board, Molecular Therapeutics (2015 - present)
- Editorial Board, Scientific Reports (2015 - present)

## **PROFESSIONAL EDUCATION**

- Ph.D., University of Pennsylvania , Pathology/Molecular Biology (1989)
- B.A., Lafayette College , Biology (1980)

## **Research & Scholarship**

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### **CURRENT RESEARCH AND SCHOLARLY INTERESTS**

During the last five years, we have identified several small molecules that acted to kill VHL deficient renal cancer cells through a synthetic lethal screening approach. We published on one of the molecules (Cancer Cell 14: 90, 2008) that killed VHL deficient tumor and are performing screens to identify new therapeutics against other targets. Another major interest of my laboratory is in identifying hypoxia-induced genes involved in invasion and metastases. We have identified and characterized

several genes that are induced by hypoxia and promote metastases in breast, ovarian, renal and head and neck cancer (Nature 440:1222, 2006, Cancer Cell 15:35, 2009) and are developing therapeutics against them. My group is also investigating how hypoxia regulates gene expression epigenetically through the regulation of histone demethylases and microRNAs.

## **CLINICAL TRIALS**

- Imaging and Biomarkers of Hypoxia in Solid Tumors, Not Recruiting
- Phase I Trial of Metabolic Reprogramming Therapy for Treatment of Recurrent Head and Neck Cancers, Not Recruiting

## **Teaching**

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### **COURSES**

#### **2019-20**

- Cellular and Clinical Aspects of Cancer: CBIO 242 (Spr)
- Program in Radiation Biology Seminar Series: RADO 244 (Aut, Win, Spr)
- The Basic Science of Radiation and Cancer Biology: RADO 202 (Spr)

#### **2018-19**

- Cellular and Clinical Aspects of Cancer: CBIO 242 (Spr)
- Program in Radiation Biology Seminar Series: RADO 244 (Aut, Win, Spr)
- The Basic Science of Radiation and Cancer Biology: RADO 202 (Spr)

#### **2017-18**

- Cellular and Clinical Aspects of Cancer: CBIO 242 (Spr)
- Program in Radiation Biology Seminar Series: RADO 244 (Aut, Win, Spr)
- The Basic Science of Radiation and Cancer Biology: RADO 202 (Spr)

#### **2016-17**

- Cancer Biology Journal Club: CBIO 280 (Aut)
- Cellular and Clinical Aspects of Cancer: CBIO 242 (Spr)
- Molecular Genetic Basis of Cancer: CBIO 240 (Aut)
- Program in Radiation Biology Seminar Series: RADO 244 (Aut, Win, Spr)
- The Basic Science of Radiation and Cancer Biology: RADO 202 (Spr)

### **STANFORD ADVISEES**

#### **Doctoral Dissertation Reader (AC)**

Amanda Rabe

#### **Postdoctoral Faculty Sponsor**

Anne Ernst, Timothy Klasson, Jin Qian, Kaushik Thakkar

#### **Doctoral Dissertation Advisor (AC)**

Anh Diep, César Márquez, Jimmy Xu

#### **Postdoctoral Research Mentor**

Timothy Klasson

## **GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS**

- Cancer Biology (Phd Program)
- Chemical and Systems Biology (Phd Program)