

Rowan Karvas  
Curriculum Vitae  
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**Education:**

University of Missouri, Columbia. BS in Biological Sciences (2007-2011)

**Work Experience:**

2.5 years as a research technician in the department of Radiation Oncology in the lab of Dr. Dennis Hallahan at Washington University School of Medicine in St. Louis.

**Publications:**

Stark DA, Karvas RM, Siegel AL, Cornelison DD. Eph/ephrin interactions modulate muscle satellite cell motility and patterning. Development. 2011 Dec;138(24):5279-89. doi: 10.1242/dev.068411. Epub 2011 Nov 9.

Bhave SR, Dadey DY, Karvas RM, Ferraro DJ, Kotipatruni RP, Jaboin JJ, Hallahan AN, Dewees TA, Linkous AG, Hallahan DE, Thotala D. Autotaxin Inhibition with PF-8380 Enhances the Radiosensitivity of Human and Murine Glioblastoma Cell Lines. Front Oncol. 2013 Sep 17;3:236. doi: 10.3389/fonc.2013.00236.

**Description of Past Research:**

My objective is the exploitation of targets induced by radiation that promote pro-survival commitment in cancer to enhance the efficacy of radiation therapy. One such target is the lysophosphatidic acid receptor-1 (LPA1). Its ligand, lysophosphatidic acid (LPA) is highly expressed in the cancer microenvironment following radiation therapy. The interaction of LPA with its receptor causes enhanced migration, invasion, and proliferation of the tumor cells. Blocking this interaction *in vitro* has resulted in the mitigation of these effects.

**Professional Memberships:**

Alpha Chi Sigma Chemistry Fraternity member since 2008.

**Awards:**

Scholar-In-Training Travel Award from Radiation Research Society. Accepted abstract for poster presentation- "LPA receptor activation as a result of radiation therapy induces aggressive characteristics in lung cancer cell lines *in vitro*"- 2014

Siegfried Scholarship for Sons and Daughters of St. Anthony's Medical Center Employees- 2008-2011

University of Missouri School of Music Scholarship: 2007-2008

**Volunteer work:**

Alpha Chi Sigma Magic of Chemistry Girlscout event- An event for young girlscouts to discover the wonders of science. I was in charge of signing in the girlscout troops and I was also an aid for their experiments.

Co-chair of Alpha Chi Sigma regional conclave- I organized the regional conclave which is an event that brings together all other AXE chapters in the Midwest region to establish the by-laws and to also hold fun, bonding activities with other chapter members.