



Hope Funds for Cancer Research

Press Release

2016 Hope Fund Fellow's Article Publication in Nature Neuroscience

For Immediate Release
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Newport, RI - August 4, 2017 - Hope Funds Fellow Carlo Campos is the lead author in an article in the July issue of *Nature Neuroscience* entitled "Cancer-induced anorexia and malaise are mediated by CGRP neurons in the parabrachial nucleus." [Click here to read the article.](#)

Campos, whose undergraduate studies at Washington State University were focused on neuroscience and psychology, received his PhD training at Washington State University on neural circuits that relay gastrointestinal satiety signals. He is currently pursuing postdoctoral training at the University of Washington, where he continues the study of neural circuits that control appetite, and has expanded his research to include the study of affect (emotions) and motivation.

"Loss of appetite is thought to afflict just a fraction of cancer patients," said Dr. Campos. "But our research shows that this anorexic circuit is also activated in mice (with cancer) that do not exhibit overt anorexia, and inhibiting these anorexigenic neurons permitted the mice to increase their food intake to counteract weight loss that was caused by increased metabolic demand.

"We found that cancer-induced activation of these neurons also contributes to decreased motivation and stress-related behavior. This suggests that therapeutics aimed at inhibiting these neurons could alleviate many of the affective-motivational symptoms associated with cancer, not just loss of appetite. The current strategy is to treat the symptoms individually, which introduces more drug-related side-effects."

Dr. Campos, a 2016 Hope Funds for Cancer Research Fellow, recently took part in the 2017 Hope Funds Scientific Convening, held June 22-23 in Newport, RI.

"Hope Funds is delighted to learn of Dr. Campos's continued success," said Leah Rush Cann, Chair of the Hope Funds Executive Committee. "The recent publication of this article is an early marker of a long and distinguished career in science."

Hope Funds was established with the immediate goal of supporting important cancer research in the most challenging and understudied cancers. The organization's founders believed that funding outstanding post-doctoral researchers was the most productive and cost effective way of achieving that goal, a hypothesis Ms. Cann said has proven correct.

"What we discovered along the way was that the Hope Funds fellowships have become a critical bridge for these outstanding scientists to remain focused on research at a time when research is extremely scarce," said Ms. Cann. "The fellowships not only support three years of research, but also help facilitate a lifetime of making discoveries."

About Carlos Campos, Ph.D.

Dr. Carlos Campos completed his Ph.D. in Neuroscience from Washington State University in 2014, and received a Hope Funds for Cancer Research Fellowship Grant in 2016. His studies employ advanced research techniques that will provide a cell-specific understanding of neural substrates contributing to cancer anorexia and malaise. He is currently conducting this research in Dr. Richard Palmiter's laboratory at the Howard Hughes Medical Institute at the University of Washington. Dr. Campos's research is based on the hypothesis that chronic pathophysiological activation of CGRP neurons in the parabrachial nucleus contributes to cancer anorexia and malaise. His research aims to selectively inhibit these neurons to ameliorate cancer-induced anorexia and malaise, and to also determine whether CGRP neurons contribute to cancer chemotherapy-induced malaise. Completion of his experiments will provide a foundation for subsequent studies to investigate potential therapeutic targets for improving cancer patient quality of life.



Dr. Carlos Campos, Ph.D.

About Nature Neuroscience

Nature Neuroscience is a multidisciplinary journal that publishes papers of the highest quality and significance in all areas of neuroscience. The editors welcome contributions in molecular, cellular, systems and cognitive neuroscience, as well as psychophysics, computational modeling and diseases of the nervous system. No area is excluded from consideration, although priority is given to studies that provide fundamental insights into

the functioning of the nervous system. *Nature Neuroscience* provides readers and authors high visibility, emphasis on interdisciplinary communication, accessibility to a broad readership, high standards of copy editing and production, rigorous peer review, rapid publication, and independence from academic societies and other vested interests. In addition to primary research, *Nature Neuroscience* publishes news and views, reviews, editorials, commentaries, perspectives, book reviews and correspondence. In this way, the journal aims to be the voice of the worldwide neuroscience community.

About Hope Funds for Cancer Research

The Hope Funds for Cancer Research was formed in 2006 by a group of concerned individuals who have experience in oncology, intellectual property law, investment banking, philanthropy, sociology, and the arts to establish a funding vehicle that would take a rational scientific, medical, and investment approach to granting money to the most interesting and promising research efforts to address the most difficult-to-treat cancers, including pancreatic, lung, liver, sarcomas, esophageal, brain, gastric, and ovarian cancers, and rare lymphomas, leukemias and MDS. These cancers are insidiously aggressive illnesses that kill most of their victims within months, even with aggressive chemotherapy. The Trustees of the Hope Funds for Cancer Research believe that funding research that could lead to breakthroughs in these areas and increase life expectancy in these types of cancers is at the core of our mission. The Hope Funds for Cancer Research is a 509 (a)(1) charity under 501(c)(3) of the Internal Revenue Service's code. For additional information about the organization, please visit <http://www.Hope-Funds.org> or call 401-847-3286.

Hope Funds for Cancer Research: Advancing Innovative Research in Understudied Cancers

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