

VISITING SCHOLAR NEWS

RTB 30
REASONS TO BELIEVE

JULY 2016



At Reasons to Believe, we are providing new ways to bring visibility to our Visiting Scholar Program. Each ministry multiplier is contributing to the kingdom of God and we want to be sure that everyone is made aware. Visiting scholar updates are now available in RTB's Weekly Digest in a section titled Building Community. We also have a brand new [web page](#) that includes a profile for each visiting scholar in our community. This issue will introduce you to Tom Phillips, who recently came to RTB's offices for a second time, and biochemical engineer Katie Galloway, who has remained connected to the ministry through a student-mentoring program called The Lab. Read below to find out more!

—Karina Rodriguez

VISITING SCHOLAR HIGHLIGHT

Tom Phillips



What is your area of expertise?

I am an experimental particle physicist. I received my PhD from Harvard and spent most of my career working on the Collider Detector at Fermilab (CDF). In 2012 I retired from the faculty

at Duke University to pursue entrepreneurship as well as research on antimatter gravity at Illinois Institute of Technology.

At what age did you come to Christ and under what circumstances?

I became a Christian in high school. Initially I thought I had no use for God and He had no use for me, but through a church youth group, I discovered that God did have a use for me. However, I am naturally skeptical. So, before I could become a Christian, I needed to establish God's existence. To do this, I ran an experiment. I prayed "God, if you exist, get me an A in English class." Well, I earned a B+ in English class, but God had the teacher change it to an A- to show me that He can do for me what I

cannot do for myself. Humbled, I honored my part of the bargain and accepted Jesus as my Lord and Savior. Now, through grace, Jesus gives me salvation that I could never earn for myself.

How did you find out about RTB?

I heard Hugh Ross give a lecture at Wheaton College while I was working at Fermilab. I bought *The Fingerprint of God* and, sometime after, a Christian colleague told me about RTB. I have been supporting RTB and using its resources ever since.

What do you like most about the Visiting Scholar Program?

I value the opportunity to develop relationships with the RTB scholars and staff. Through these relationships we are able to discuss important issues and see things from different viewpoints, which helps us get closer to the truth and have better ministries.

CONGRATULATIONS!

Visiting scholar
Chuck Horst was selected
as Outstanding Faculty
Member of the Astronomy
Department at San
Diego State University.
Congratulations, Chuck!



Katie Galloway
Biochemical Engineer
Visiting Scholar Dates:
July–August 2013

Greetings from USC! Since my time as a visiting scholar, I have been doing postdoctoral work in regenerative medicine and stem cell biology. The lab

that I work in is focused on understanding the disease mechanisms of amyotrophic lateral sclerosis (ALS, a.k.a. Lou Gehrig’s disease) and identifying therapeutics using cellular models. Neurodegenerative diseases affect highly specific cell types in the central nervous system. ALS selectively destroys spinal motor neurons, which eventually leads to systemic paralysis and death. To understand ALS, we need to know what makes these cells vulnerable to degeneration.

Since these cells cannot be taken from patients for study (that would be like asking, “Can I borrow your brain for my experiment?”), our lab converts human skin cells into induced motor neurons. Conversion to motor neurons is mediated by viruses that increase the concentration of proteins called transcription factors, which guide cells toward the motor neuron identity. While some of the cells that we generate from this conversion process are good models of motor neurons, others are not. I have been working to improve the fidelity of conversion so that we can start screening for drugs that prevent neurodegeneration. Having a good model of a motor neuron is essential for identifying drugs with the potential to protect a patient’s motor neurons.

In addition to my research at USC, I have been helping RTB with the development of [The Lab](#). The Lab is a 3-day intensive training program that aims to equip students with the mindset and tools to engage in evangelism in the context of pursuing a degree in the sciences. In July 2015, we trained the first 20 students and

received feedback that the experience encouraged and equipped both students and parents. This July, I am looking forward to another great time with the students and staff at The Lab.



Don Olson
Analytical Chemist
Visiting Scholar Dates:
February 2013

I enjoy reading in a broad spectrum of the sciences, but the one that I am most active in is analytical chemistry. Together with two business partners (also fellow scientists),

I founded a small analytical technology company called Global FIA (www.globalfia.com). Together, we have developed a versatile new technology for automating complex wet chemical analysis and sample processing operations that can be tailored to customer needs. Our company has received two international awards for the excellence of our technology. Recently we ventured into a new field of application—automated analyzers for chemical oceanographers.

Oceans play a key role in regulating Earth’s weather and climate. Consequently, there is a major global effort underway to understand how our planet’s oceans work and how they influence climate change. With this effort has emerged a great need for better analytical technology to measure key chemical components in the oceans. To address this need, our company developed a new analyzer and sampling system and mounted a prototype “black box” on a pontoon boat. We conducted our maiden “voyage” in Puget Sound where our Beachlab is located. Last year a commercial version of the analyzer was deployed on a cruise by Commonwealth Scientific and Industrial Research Organisation (CSIRO), an Australian government organization that monitors their coastal ocean, estuary, and river waters.

This oceanography project is just one example of our commitment to good stewardship of the earth. Our small business is operated and underpinned with Christian values. Over our history, two members have come to the Lord, and we are now all Christians. We seek and have been blessed with a number of projects that benefit mankind in some way. Because of our international reach, we have made contacts and friends worldwide, and this has provided us with opportunities to share the gospel.



EXPLORE MORE RESOURCES FROM OUR VISITING SCHOLARS

Katie Galloway: Watch her video on [“Genetic Destiny”](#)

Don Olson: Read his article on [“Was Jesus’ Arrival Accurately Predicted in the Bible?”](#)