

Meet...

Philip LoGrasso

BIOCHEMIST, *Jupiter, Florida*



BORN IN

Whitestone, New York

JOB SITE

Scripps Research Institute/Scripps Florida

HOBBIES

Coaching my son's baseball and football teams, canoeing and swimming with my family

SOMETHING THAT MAKES YOU SMILE

The silly dances my children do when they're happy

LAST BOOK YOU READ

A biography of football coach Vince Lombardi

What He's Doing

Ever since he produced a reaction that turned things green—his favorite color—while playing with his childhood chemistry set, Philip LoGrasso wanted to be a chemist. (Well, that or a baseball player, but he wasn't able to snag an athletic scholarship to college.) Now, he's using chemistry to understand how enzymes work and to discover new drugs.

Enzymes do vitally important jobs in our bodies. They speed up the chemical reactions that keep us alive. But they can also cause life-threatening problems if they work harder than they're supposed to. Depending on the enzyme affected, artery-clogging cholesterol might build up, or critical brain cells could die.

That's where LoGrasso comes in. He directs a team of about 35 scientists who specialize in molecular and cell biology, medicinal chemistry, biochemistry and pharmacology. They are designing molecules that stop overactive enzymes from doing harm in an effort to create safe and effective drugs that treat different human diseases.

LoGrasso combines his curiosity about basic science with a desire to improve human health. His ultimate goal is to put something in people's medicine cabinets that makes them feel better.

"You have to be strong-minded. Every day you'll fail at something. Never quit, never give up. Keep your eye on the long-term goal."

His Findings

LoGrasso works with a family of enzymes called kinases. One has the technical-sounding name of c-Jun N-terminal kinase (nickname: "JNK," sounds like "junk"). It plays a role in the death of brain cells in Parkinson's disease. LoGrasso is developing small molecules that specifically attack JNK so more brain cells stay alive.

Another enzyme called Rho-kinase (nickname: "ROCK") is involved in the eye disease glaucoma. ROCK makes muscles contract in a tube that leads out of the eye. Like crimping a hose, this restricts drainage of the fluid that fills the eye. More and more fluid builds up, gradually raising eye pressure and destroying vision. LoGrasso is working to create a ROCK-blocking drug that will relax the muscles so fluid can flow out.

Meet more interesting chemists at <http://www.nigms.nih.gov/ChemHealthWeb>.