

physical health improved substantially when I learned enough about nutrition and the right balance of calories in/calories out" make smarter food choices. At the same time, I also began doing serious aerobic exercise to improve cardiovascular fitness. My doctor there was a doc who said, "Run or die." OK, that's a little paraphrased, but you get the point.

**nothy Nelson**  
**U Professor of Biology**  
**attle**



Don't have a secret, but a good observation. We were fortunate to be born during the Depression of the '30s, followed by World War II. Our grandparents lived frugally, and their eating habits benefited. When I look at family photographs of that era, I marvel how slim everyone was. I also believe God has endowed our bodies with natural healing gifts that are totally free: laughter and singing. Jay (Pearson) has been living with Hodgkin's lymphoma the last four years, and laughter and singing continue to help keep us strong — plus a huge band of prayer partners!

**thy Pearson '57**  
**rcer Island, Washington**

Daily: Run three miles, recite the "Our Father" and "Hail Mary" while doing yoga, and pause throughout for *lectio divina*.

**Laura Lasworth**  
**SPU Professor of Art**  
**Seattle**

At age 57 and as a cancer survivor, I am even more health conscious than I was before my cancer diagnosis in 2006. I have found the following helpful in maintaining health:

- Watching the sweets. Cutting out coffee creamers helped me shed some extra pounds.
- Exercising at least three times a week, and lifting light and moderate weights to maintain bone/muscle mass.
- Trading jogging for bike riding whenever the weather will allow since having a hip replaced in 2007.
- Reading the Bible and daily devotions to address spiritual fitness.

**Gregory Gelderman Ed.D. '04**  
**SPU Certification Officer**  
**Everett, Washington**

1. Listen to your body.
2. Never deprive yourself, but never indulge yourself either.
3. Make exercise comfortable.
4. Make health a priority.
5. Keep healthy snacks handy.

**Delong Tsway**  
**SPU Junior;**  
**Biochemistry Major**  
**Sammamish, Washington**

## What makes your city unique?

**Readers:** We invite your answers to "The Question" in our next issue.

This winter, we'll look at how people are engaging the culture, changing the world in cities, and how our urban campus sees us a distinct perspective on the challenges and joys of city life. So we want to know: What's the first thing you tell a visitor about your city or town?

Share your thoughts with us at [response@spu.edu](mailto:response@spu.edu) or [www.spu.edu/response](http://www.spu.edu/response), and you could see your answer featured in the next magazine. Answers may be edited for clarity and length.



## WORD PLAY

What's in a Word?

We don't know about you, but we love to learn about words — their meanings, their origins, how to use them in conversation. In each issue of *Response*, we'll ask a campus expert to explore a word related in some way to the magazine's theme. This time, an SPU biochemist introduces "sphingolipid."

# SPHINGOLIPID

sfɪŋ-gō-lip'-əd (n.)

By Benjamin McFarland, Associate Professor of Biochemistry

If good fences make good neighbors, then good membranes make good cells. Sphingolipids are some of the "bricks" in the membranes of blood and brain cells. The first researcher to define them was confused about their role and named them for confusion: The prefix "sphingo-" refers to the Sphinx, the original mythological riddler and bane of ancient travelers, added onto the Greek "lipos" meaning "fat."

At least 60 different sphingolipids are in the human body, many still as enigmatic as, well, the Sphinx. Some general riddles have been solved, however. Sphingolipids are chemically well-built and sturdier than most other lipids. Also, they are extroverted molecules that sit on the outside of the cell, pointing at and talking to the rest of the body.

Your immune system constantly surveys your blood cells' sphingolipids and has grown accustomed to them. In fact, the shape of the sugars on your sphingolipids determines whether your blood type is A, B, or O.

The difference between A-type and B-type blood is just six tiny atoms (one "N-acetyl" group), but your immune system detects the difference, like the princess and the pea. If blood is transfused into your bloodstream with an unfamiliar sphingolipid, your immune system concludes that it's under attack and defensively musters up a life-threatening overreaction. (Sometimes the immune system's response can be too much of a good thing!) Knowing your blood type, and therefore knowing your sphingolipids, lets you know whether you can give blood to, or accept blood from, someone else.