

Sunday, September 7, 2003

Five researchers to watch

UA research accounts for 8,915 jobs and pumps \$387 million into the economy. Here are some of the most promising practitioners:

Dr. Daniel Von Hoff

Age: 56

What he does: Directs the Arizona Health Sciences Center's new Cancer Therapeutics Program, and used to direct the Arizona Cancer Center. His research focus is pancreatic cancer.

What he could do: Help people survive a cancer that now kills all but 1 percent of its victims within five years of diagnosis. It will kill 500 people in Arizona this year.

Jennifer Barton

Age: 36

What she does: An associate professor in biomedical engineering, she uses light imaging to detect the earliest signs of cancer in tissue, specifically looking for skin and colon cancers.

What she could do: Early detection using optics technology would allow cancer to be removed before it becomes a threat.

Brian Anderson

Age: 33

What he does: An assistant professor of optical sciences and physics, he specializes in cold atom research. He is pioneering techniques for using light to manipulate matter, a reversal of the common role of using mirrors and lenses to manipulate light.

What he could do: His work could lead to breakthroughs in such areas as navigation techniques, timekeeping and measuring the strength of gravity, leading to advances such as probing for underground oil reserves without disturbing a rock.

Dr. Donata Vercelli

Tech Transformation

An Arizona Daily Star special report, Sept. 7-9, 2003

Part I — Saving economy through science

- He's an entrepreneur in action
- Five researchers to watch

Part II — Arizona is making money commitment

- Tucson, Phoenix are partners

Part III — Planting the seeds

- Oro Valley becomes an upscale tech mecca

Age: 50

What she does: Assistant director of functional genomics at the Arizona Respiratory Center and a professor of cell biology, she researches genetic links to asthma.

What she could do: Understand why some people get asthma and what type of asthma they have, then devise individual treatments for patients based on their genetic profile. More than 80,000 children in Arizona have asthma.

Mo Ehsani

Age: 49

What he does: A professor of civil engineering and engineering mechanics, he uses paper-thin fiber-composite materials many times stronger than steel to strengthen buildings, bridges and infrastructure such as pipelines.

What he could do: Revolutionize the construction industry by extending the life of existing buildings without adding the bulk of concrete and steel.

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