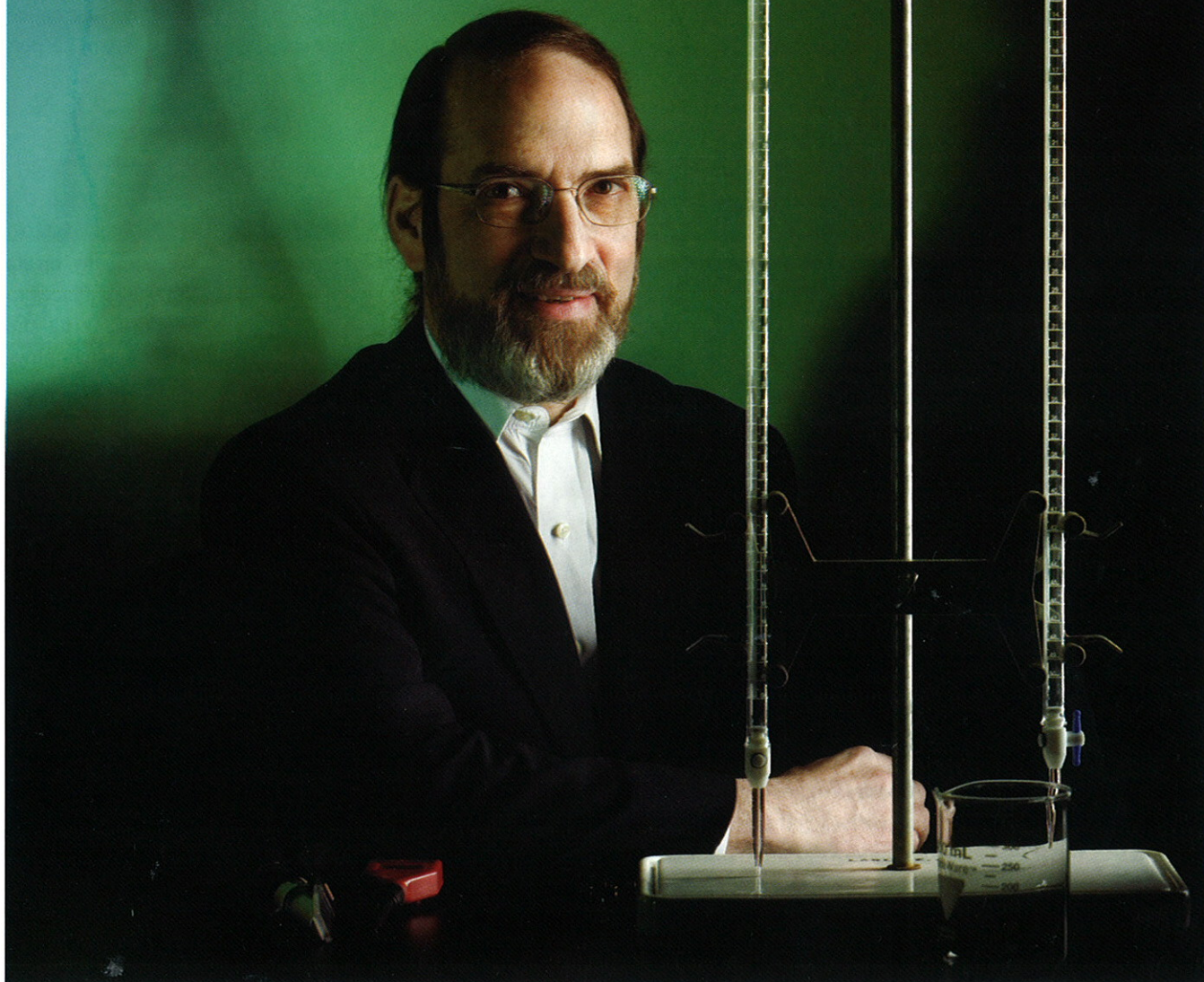


Building a Bioeconomy

For Maury Radin, developing a cleaner, greener, more equitable world begins at home in Memphis, Tennessee.



Maury Radin is a Memphis native who built a career, family and life in his hometown. When he sold his family's successful Memphis-based Manpower, Inc. franchise in 2000, Radin looked for a new way to grow jobs and economic opportunities close to home.

Radin's quest led him to BioDimensions, Inc., co-founded in 2006 with

agricultural technology expert Peter Nelson. The Memphis company is helping build a supply chain from farm to industry, giving farmers new markets for crops and industry cleaner, greener and renewable resources. In partnership with the nonprofit Memphis Bioworks Foundation (www.memphisbioworks.org), BioDimensions developed a dy-

namic strategy for bio-based products in five states and 98 counties in the Mississippi Delta. In a recent interview with *Executive Highlights*, Radin talked about BioDimensions, sustainability and Memphis as the ideal hub of a new bioeconomy.

Why did you focus your talent and energy on bio-based products? "My wife, Elaine,

and I recycled newspapers, cans and glass when no one recycled. We would go out of our way to buy the bottle with the deposit so it didn't get thrown away.

Company Snapshot

BioDimensions, Inc.

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We had a long history with sustainability issues. When I left my first career, I was introduced to people working in sustainable agriculture, specifically, the use of agriculture and forestry materials for products traditionally made from petroleum or other finite fossil fuels.

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“There is nothing new about what we do. George Washington Carver did this over 100 years ago. His work in bio-based products, made from feedstocks (sustainable crops, oils, plants, trees and grasses that can be converted into biofuels or biomass), is the basis for what we do. We also saw a way to give something back to the Memphis community.”

How can BioDimensions help Tennessee farmers? “We’re trying to facilitate the development of the supply chain from farm to factory. This supply chain does not exist. Most farmers grow crops, sell to somebody who hauls it away and adds value to it. For example, General Mills buys corn and adds value by making cereal. They get to charge a lot more for

cereal than they paid for the corn.

“We don’t compete with food. That has been a problem with ethanol made from corn. Ethanol increased the demand for corn, so we pay more for bread and cereal. We don’t compete in the food-feed-fuel debate. We work with farmers interested in harvesting plant cellulose—such as stalk waste from rice and grasses—for industrial uses, or in growing and processing renewable bio-based crops like switch grass, canola, sweet sorghum and sunflowers.

“There are all sorts of implications relative to rural development, to farming and agriculture, and in helping industries that haven’t normally collaborated with each other. One example is green chemistry. Most people think of bio-based materials as fuels like ethanol and biodiesel. Fuel is an important part, but there are a lot of other products you

can make from sustainable feedstocks. Chemicals traditionally based on petroleum molecules can be based on a carbohydrate molecule from a plant.

“So the bioeconomy we are talking about provides additional opportunities for the farmer not only to grow different crops and have financial opportunities, but to own part of the initial processing—an opportunity to participate higher up in the value chain, which, in turn, will help retain and create new jobs.”

Some BioDimensions projects are conducted in partnership with the Memphis Bioworks Foundation. How do the two work together? “BioDimensions is a privately owned corporation. Memphis Bioworks Foundation is a nonprofit created as an

economic development vehicle for biosciences. Memphis already had quite an industrial cluster of orthopedic and other surgical manufacturers, so there was an existing industrial base. The idea was to grow that base and make Memphis a center for the biosciences. As part of this effort, the Bioworks Foundation decided to make an investment in bio-agriculture or ‘ag-bio’ due to the area’s agricultural and forestry resources.

“The foundation’s leadership recognized BioDimensions’ expertise in that area, so we operate in partnership and under contract to execute their ag-bio initiatives, to advance their mission of economic development around biosciences. Partnering with us opens up the opportunity to expand into sustainable resources and the bio-economy.”

Why is the Memphis area uniquely suited to be the hub of this new bioeconomy? “To create a totally new bio-economy, you need to be in the middle of a rich agricultural region. Given our agriculture and forestry, the logistics inbound and outbound, and the infrastructure, it became clear that Memphis was the logical choice.

“Memphis Bioworks Foundation recently completed an economic development study showing how a bioeconomy can benefit the entire Mississippi River Delta region. I’d encourage readers to review the study, ‘Regional Strategy for Biobased Products in the Mississippi Delta,’ at www.agbioworks.org. The study concludes that sustainably grown and harvested crops and forests can adequately supply an \$8 billion biofuels and bio-products industry without impacting the food-feed supply chain. The study estimates this bioeconomy should produce 25,000 direct and indirect jobs in the region over 10 years, and 50,000 by 2030.” ■