

Brain keeps making new cells

Research scientist Rex Jung of the Mind Research Network studies brain disease and what the brain does well, or positive neuroscience.

Two findings of the past decade or so, which have been demonstrated in imaging studies at his lab, make his work more meaningful.

“Our brain keeps producing new brain cells,”

he says in an interview from his offices at the Mind Research Network on the University of New Mexico north campus.



REX JUNG

That finding turned upside down a long-held theory that humans were born with a finite number of cells in their brain, he says.

The production of brain cells begins to diminish in early adulthood, but a low level of production continues in the hippocampus, he explains.

“More exercise produces more brain cells,” Jung says. The challenge is to discover exactly what effort maximizes the production for the greatest overall benefit.

The other finding that feeds his work is that “if you change your mind, you can change your brain.”

He is researching several avenues to discover what mental exercise or combination will sculpt the brain for best performance.

The finding supports what clinical psychologists have practiced and advocated for years: the idea that talk therapy, cognitive therapy and other therapies offer lasting help to patients because the therapies change the way the patients’ brains work, he says.

One element that keeps popping up in studies over time is that people who are more social have more mental capacity, he says.

“It’s borne out time and time again,” he says.

So Jung suggests that instead of staying home and playing solitaire for mental stimulation, you go out and play bridge or tennis.

Results of imaging tests studied locally

New research

Aging’s effect on the mind might not be all bad.

Rex Jung of the Mind Research Network says one interesting and beneficial effect could be that people become more creative as they age because of changes in the brain.

He says he’ll soon publish papers about his research that involves how myelin changes as the brain grows older.

Myelin acts as insulation, or a protective covering, for neurons and helps the conduction of impulses in the brain, he explains. His

study participants include engineers and artists, people who are creative in different ways.

His theory is that when the brain is in its prime, thoughts and impulses flow along through the myelin like a super highway. But as the brain ages, the thoughts and impulses have to follow less traveled paths and perhaps make more creative connections.

“It’s the difference between I-25 and Route 66,” he explains. “It could be the good news of getting older.”