longevity in action  
Challenge Your Brain

# Facilitator Preparation (What You’ll Need)

* Challenge Your Brain worksheet
* Writing utensils
* A copy of Dr. Roger Landry’s *Live Long, Die Short: A Guide to Authentic Health and Successful Aging* (optional)
* Footwear and appropriate clothing for event (participant’s responsibility)

# Session Content:

Please read this aloud:

A few reminders before we begin …

* Please be respectful to one another. Everyone in this room comes from a different background that has formulated who they are as a person and contributed to their unique opinions. As a group, we will observe *respect* as a guiding principle as we interact with one another. It is our goal that all participants feel valued, respected, and heard.
* Share without imposing your beliefs on others. Please refrain from convincing others to adopt your opinions.
* Keep an open mind. Our discussions will be thought-provoking and insightful. You may not agree with everything you hear, but please be willing to consider opinions that may be different from your own.

# Today’s Objectives:

Please share these objectives with participants.

* To explore the idea of creating new brain tissue, enhancing cognitive ability, and combating dementia.
* To learn something new and flex our cognitive muscles.
* To learn why it’s important to “unplug” when appropriate.

# Opening Passage: Becoming Your Own Department of Transportation

Read this excerpt from *Live Long, Die Short* aloud: Pages 100-101.

Think of the brain as a collection of millions of miles of roads. In fact, that’s what the brain is: roughly 100,000 miles of neural pathways. And every time we wish to move, learn something new, recall a fact, recognize someone, or do any of the magnificent things our brain is capable of, messages travel along these pathways at hyper-speeds of up to nearly three hundred miles per hour and enable us to do the task we wish.

OK. Say you learn something new. Whatever, the list of presidents, or how to play “Mr. Tambourine Man” on the guitar. Now think of that list or skill as a destination—say, Boston—where you want to go. Once you’ve learned it, you have built a neural pathway to Boston. Keep doing it and you build a neural freeway to Boston so you can get there faster (do it better). Stop doing it and the road you built gets smaller, and eventually some bridges will wash out, or it gets potholes and you can’t get there as fast, or at all (can’t do it as well, or at all). Say you want to learn something new. You want to go to New York instead. Again, you’ll build a path, then a freeway, and as long as you use it—you guessed it—you won’t lose it. Don’t use the road and you will lose it.

What happens if something wipes out the road you built, say a head injury or a stroke? You will not be able to travel that road and do what you did before, whether it’s speaking, or walking, or remembering your first dog’s name. But what if you want to do those things? What if you work at it? You got it. In many cases, somehow the brain will find a route around the damaged area to your destination. That’s neuroplasticity, the brain rewiring in response to the environment and a behavior.

When Dr. Jill Bolte Taylor was thirty-seven and a neuroanatomist at Harvard, she had a stroke that left her unable to speak, walk, or do much of anything she had done before as an intellectual. She describes her remark- able journey in her book My Stroke of Insight.3 Her story is compelling on many levels, but what is particularly astonishing for all of us is that after eight years, she was fully recovered. After a long road of rehabilitation and dogged determination, she walks, writes, and speaks publicly about her experiences. Of course, her catastrophic cerebral hemorrhage wiped out part of her brain, destroying many of her pathways. But, determined to regain what she lost, she has clearly built new roads, either by finding other routes to her goal and building those up, or perhaps, even by making new ones. By a process called axonal extension, neurons are able to grow connections to other brain cells to create a pathway. Other neuron appendages, called dendrites, which bring signals into the neuron, are also able to grow and create or enlarge new pathways.

And Jill Bolte Taylor’s story, despite its dramatic outcome, is not an outlier. Returning soldiers from Iraq and Afghanistan with devastating brain injury have shown a remarkable ability to recover. The ABC television journalist Bob Woodruff, injured by a roadside bomb in Iraq, is a well-known example of these new possibilities.

# Group Discussion

Please read this aloud:

Dr. Roger Landry discusses in *Live Long, Die Short*, that for neuroplasticity to occur, we need to keep learning new things. He also shares five key elements for improving cognitive function. They are:

* Physical activity
* Mental stimulation
* Stress control
* Regularly unplugging
* Balanced nutrition

Additionally, “challenging our brains” means that we choose activities that are new, novel and complex – ones that require our complete attention.

(If necessary, please remind participants to be respectful by limiting answers to about a minute so that more people have time to share.)

Question: Of these recommendations, which one are you most interested in exploring for yourself?

Question: What does that look like for you?

Question: What is your favorite “brain” game? What do you like about it?

Question: What new skills are you focused on acquiring? Or, have you noticed a loss of a skill or ability that you would like to refocus on?

# Group Activity: The Ping, Pang, Pong Experience!

Try this fun activity with your group. Ping, Pang, Pong is one of Dr. Rob Winningham’s Cognitive Connections. Have participants sit in a circle and begin moving clockwise. The first person says, “Ping.” The second person says “Pang,” and the third person simultaneously says “Pong” while pointing to someone. The person who has been pointed to starts over and says, “Ping.”

After participants are familiar with the game you can encourage them to try to be deceptive. For example, if they are going to say, "Pong," (that is when they have to point to someone) they should look at one person and point to someone else.

# Group Discussion About Ping, Pang, Pong

(If necessary, please remind participants to be respectful by limiting answers to about a minute so that more people have time to share.)

* Question: What was that experience like for you?
* Question: What was the most challenging aspect of the game?

(Optional) Group Activity: Learning Something New

Try something new at your organization, in person or virtual. Some ideas include a group cooking class or taking a class that’s regularly offered but may not have been tried before. For the latter, encourage the group to break off into smaller groups. For example, one group may opt to attend a water aerobics class together, while another may decide to take a woodworking class. The point is – they should be challenged to pick something that’s new to them, or something where they have little experience.

**Some additional ideas:** Storytelling class; science course; modern dance class; American Sign Language class; World of Wellness session; etc. The possibilities are endless, particularly if you tap into human capital by inviting a participant to lead this session by sharing a skill they have with others.

Group Discussion About Learning Something New Event

(If necessary, please remind participants to be respectful by limiting answers to about a minute so that more people have time to share.)

* Question: Would any one like to briefly share with us what you thought about the event you participated in today? What did you like best about it?
* Question: Why is challenging your brain such an important component to building and maintaining resilience?

Please read this aloud:

There are a lot of opportunities to challenge your brain on a daily basis, such as learning a new card game, brushing your teeth with your non-dominant hand, making a new healthy recipe or attending a new fitness class.

If you enjoyed today’s events, and want to explore additional ways to challenge your brain by trying new things, we highly encourage you to participate in Masterpiece’s *Living It experience,* which invites participants try a series of new, novel, and complex experiences throughout the month. Talk to me to learn more.

# Wrapping Up Today’s Session

Please read this aloud:

Thank you, everyone, for being here to share your time and your thoughts with each other. We look forward to many more insightful opportunities and discussions from *Live Long, Die Short* about building resilience. As a reminder, our next session is scheduled for [Day – Date – Time – Location]. Our topic is [Topic Name]. You are welcome and encouraged to bring a friend, but please RSVP for both of you. The sign-up sheet is located [Location]. Additionally, if you would like to assist with facilitating next week’s session or a future session, please let me know.

Before you go, please take a few minutes to write down a brief journal entry about today’s session. It can be anything from notes you’d like to remember or a personal initiative you might like to take. Before each entry, you’ll notice a couple of questions to think about, and you’ll have the opportunity to sum up this session in a simple word or phrase. Your journal is for your eyes only. Remember, I am always available to help answer any additional questions you may have about this journey.