

Sanders-Brown March 1, 2025

To register for the 17th Annual Mind Matters

<u>Health Fair scan</u> the QR Code or visit the link below:



https://bit.ly/SBCoAHealthFair2025

Volunteer News

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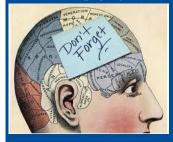


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Got an idea for the newsletter? What do you need to know? Call 859-323-5550

Explore Healthy Brain Aging at our 17th Annual "Mind Matters" Health Summit

Save the date for this April 21, 2025 from 9am-1pm at the Marriott Griffin Gate, Newtown Pike, Lexington, KY

We hope you will join us for this year's "Mind Matters" Health Summit. This unique experience is modeled after the Children's Explorium, including hands-on activities and educational programs focused on helping you learn how to "Explore Paths to Healthy Brain Aging"!

The event this year will be held at the Marriott Griffin Gate Newtown Pike, Lexington, KY on April 21st from 9am to 1pm. This event is absolutely free of charge and a complimentary breakfast and refreshments are provided for all attendees for a morning of adult fun & learning.

Sport Oxygen Oxy

In addition to interactive education sessions, there will be hands-on activities designed to help us all "Explore Paths to Healthy Brain Aging" together!



The program that we are hosting at the Marriott Griffin Gate on Newtown Pike in Lexington has abundant parking as close as 20 feet from the main entrance allowing easy access for those with physical disability. This venue allows us to increase interactive exhibits and amply space out activities for a personalized brain health experience. (Cont on pg 4)

Microplastics and your brain health: What you should know, and what we still don't know...



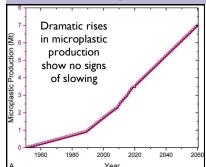
Recent discoveries of increased microplastics in human brain shock researchers!

Recently, several scientific publications have come out ringing the alarm bells about microplastics (MP) and our brain health. These studies have estimated that you can isolate about 10 grams of plastics from a donated human brain; that's about the weight of an unused crayon. Think about that...

Microplastics have been found just about everywhere that scientists have looked including even the most remote islands, in fresh snow in Antarctica, at the bottom of the Mariana Trench in the western Pacific, in food, in water and in the air that we breathe. And now scientists are beginning to find them spread throughout own human brains. There's no doubt that none of us would want a "crayon" in our brain! Let's explore what we know and still do not know about this new threat to healthy brain aging. (Cont on pg 2)

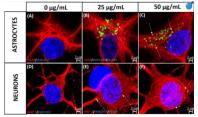


Microplastics and your brain health (cont'd from page 1)



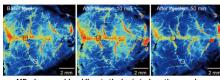
As global MP levels rise, we are beginning to understand the consequences. Recently MPs have been discovered in brain tissues of persons that have passed. These studies have also shown that the levels of MPs in your brain are rising over time along with the increase of MPs in our environment. But how do they get into our brains that can exclude even the smallest bacteria?

One theory is that they are initially harmless and not recognized by our body's immune system scavenger cells, thereby evading the immune system. Only over time do they begin to degrade



Primary astrocytes, not nerve cells appear to take up the MPs and this leads to brain inflammation. Sci Rep. 2025 Feb 22;15(1):6502

into the toxic chemicals that can harm our brains and trigger dangerous inflammation in our brains. This theory is supported by recent data showing that one of the brain's inflammatory cells, astrocytes, are the home for MPs in the brain, leading to a chronic inflammatory response that may be damaging to the brain, just like inflammatory arthritis leads to joint destruction.



MPs decrease blood flow to the brain in less than one hour Sci Adv. 2025 Jan 24;11(4)

Recent studies have also demonstrated MPs in the blood vessels of the brain. These could clog the small blood vessels and increase atherosclerosis in your vital brain blood supply. This is exactly what a recent animal study has shown with decreasing blood flow to the brain in just 50 minutes and could lead to "hardening of the arteries" or even an outright stroke.

To reduce microplastics in your body, you can: avoid heating food in

plastic containers, drink filtered tap water, limit seafood consumption, choose natural fibers in clothing, avoid plastic takeout containers, opt for loose-leaf tea instead of tea bags, and regularly dust and vacuum your home to minimize airborne microplastics. Some day we may find a way to clear these MPs from your brain, but until then, trying to keep them out in the first place is your best bet for a healthy brain for years to come!

Innovative ways your primary care provider can help screen you for early memory loss & why that matters



Primary care providers (PCPs) may not always explore your memory concerns. They may simply avoid it as it can be so time consuming and delay other patient visits. This is common and a notable cause for the lack

of diagnosis in about half of all persons with dementia. We're working to help fix this!

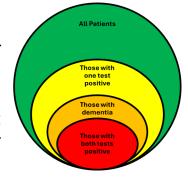


Our current research has developed the Brief Test of Mental Status (B-TOMS) which can correctly identify 87% of persons with even the earliest memory decline in under 3 minutes. It includes a 5 word memory test and spending just 60 seconds naming animals. If a person cannot remember 3 or more of the 5 words after 5 minutes, and name more than 19 animals in 60 seconds, they quite possibly have a memory

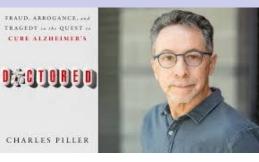
problem. If both test scores are abnormal, the test can identify mild cognitive impairment or dementia accu-

rately in 93% of persons, but may miss up to I in 3 impaired persons. If the PCP wants to screen for any chance of possible dementia, they can rely on only one of the tests being positive, they will miss fewer than 7% of persons that are appropriate to send on for more advanced evaluations. We leave it up to the PCP to best determine how they would like to use the test results to best treat their patients.

The B-TOMS was developed based on <u>your</u> research testing and couldn't have been developed without your research participation. Thanks to you, we're helping PCPs, help the millions that are not part of our program undergo effective screening for memory impairment and dementia!



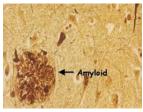
Is there fraud in Alzheimer's research & what might that mean?



Just this past month, a new book, "Doctored", was published which was written by a scientific journalist and investigative reporter. The book is promoting the idea that there is "fraud, arrogance, and tragedy" involved in our "quest to cure Alzheimer's". The book involves some excellent investigative journalism that has identified 600 scientific papers that appear to include figures manipulated by the authors. This is a serious threat to everyone's confidence in the work that others do to advance the field.

While the book is well-written, and the investigative journalism outstanding, the author's conclusions that we can't trust any research, and that the recently approved anti-amyloid therapies are not to be trusted, are simply not supported. So, let's delve a little deeper and try to understand the arguments.

Piller points out that a highly cited 2006 paper reporting that a sub-type of amyloid (AB*56) led to memory impairment included manipulated figures. The author denies fraud, and the work from many labs across the globe have verified the presence of soluble oligomeric AB as a reality. Piller also looks at an experimental Alzheimer's drug, called Simufilam, that was based on work that published manipulated figures. In the last year, a definitive human clinical trial of Simufilam that was conducted properly, provided negative results. The truth was found through science, irrespective of potential fraud. The book also focuses on the case of Dr. Eliezer Masliah, who led the NIH Division of Neuroscience from 2016-2024. Piller presented evidence that for decades Dr. Masliah's research had included improperly manipulated photos of brain tissue and was "riddled with apparently falsified" results. This may be true.

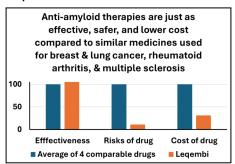


You should know, however, that a single science paper does not direct the field until it is replicated by others. You should also know that while the data for AB*56 and for Simufilam were questionable (or indeed fraudulent), it was science that gave us the truth. While Dr. Masliah was in power at the NIH, he had little to no control over grant reviews and subsequent funding of applications which is largely determined by an impartial panel of reviewers such as Dr. Jicha and others at the Sanders Brown Center.

Finally, you should also know that the partial success of amyloid therapy research has been replicated over and over! Science did its job! Science is imperfect and scientists need to patrol each other's integrity, but such is usually the case.

Ultimately, Piller identified that up to 600 papers were potentially fraudulent in the field out of a total 245,112 papers. Piller thus demonstrated that fraud is present in 0.2 % of the Alzheimer's disease related science. The argument that we should throw out the other 99.8% of good research is grossly flawed, and fails to support the conclusions that the present anti-amyloid therapies are not helpful.

Indeed, our recent paper published in Alzheimers & Dementia: Translational Research & Clinical Interventions (https://alzjournals.onlinelibrary.wiley.com/doi/full/10.1002/trc2.12500) explores the approved anti-amyloid therapies from the broad perspective of biologic agents in modern medicine. This "bird's eye view" demonstrates that need is greater, efficacy is equivalent in terms of slowing disease, safety is better than most other approved therapies of this type for other conditions, and that the costs for this type of medicine are far lower than analogous medicines. Piller should acknowledge such data, or his own message and the conclusions of his recent book can be grouped together along with the fraud he seeks to expose.



As far as we know, not a single fraudulent paper has come out of the Sanders-Brown Center on Aging,

and the work we do is done with passion, integrity and the highest scientific standards.

"Mind Matters" Health Summit: Explore Healthy Brain Aging (Cont from pg 1)

Our focus this year, "Explore Paths to Healthy Brain Aging", will educate and engage in ways to keep your brain healthy through free medical screenings, and programs on physical exercise, mental health and well being, art and creativity, among many more. Interactive exhibits can help you maximize your independence and plan for a happy and healthy future. Learn about the latest discoveries to maximize your brain health from experts in the field. What you learn and engage in could buy you years of continued independence as we strive to Explore Paths to Healthy Brain Aging together!



- The program this year will open at 9am with a Plenary presentation on Social Engagement and how you can defeat loneliness. Learn how impactful this is, and what you can do about it!
- Breakfast will be served as we begin our journey together.
- We will then open the interactive hands-on exhibits from 10-12 where you can explore the areas and topics that are of greatest interest to you.
- The program will close at Ipm with a second plenary session focused on the latest research updates in healthy brain aging and the prevention of AD and related disorders by our own Dr. Greg Jicha.
 So mark the date on your calendar as you won't want to miss this one. If you have questions or would like to pre-register for the event, please call us now at (859) 323-5550. We can't wait to see you!

The SHIMMER study releases promising results for those with Lewy Body dementia (LBD)



Despite the depressing news about potential funding cuts and potential fraud in AD research, we continue to move science and new medical breakthroughs forward. We have been actively involved in a clinical research trial for LBD, using an experimental medicine, CT1812, that has just released groundbreaking results!

LBD is the second-leading cause of degenerative dementia, and few medications have been developed to specifically help the 1.4 million people in the US with this diagnosis. CT1812 was able to slow cognitive decline by 91%, anxiety/hallucinations/delusions by 82%, Parkinson symptoms by 62%, and impairment in daily functions by 52%. While not a cure, this looks promising. We need the phase 3 trial to confirm these results.

CT1812 is also being tested for use in Alzheimer's currently at our center. If you have MCI or dementia you may be able to get this medicine and or add it to your anti-amyloid therapy now!

We will continue to push for such breakthroughs, and need your help to eradicate LBD and AD! If you have LBD or AD and would like to help move this science forward, please call us at (859) 323-5550.