Greetings from the GEM Study Principal Investigator
By Steven T. DeKosky, MD, University of Pittsburgh

Dear GEM Study Participants,

It has been four years since study investigators joined scientists at the National Institutes of Health to begin planning the Ginkgo Evaluation of Memory Study. Recruitment for participants ended in May, and I am extremely proud to share the news with you, our valued participants, that 3074 people joined the GEM Study. The GEM Study is the largest trial ever done to test a drug for the prevention of dementia. This record-breaking success was achieved only through your commitment to answering important questions about the prevention of memory and thinking problems in older adults.

In this second Ginkgo Gazette, I want to recognize the time commitment given to the GEM Study by your proxies. Twice each year, people you identified as having regular contact with you are giving up an hour of time to answer questions for our study. Beginning with this issue, each participant’s proxy will also receive the newsletter. Although the study has 3074 participants, we actually have 3074 proxies that make our achievement even more significant! I would like to extend a warm welcome to all our proxies, and a sincere thank you to everyone for your time and energy in making GEM a landmark study.

In future newsletters, we will discuss topics related to memory, ginkgo, and the concerns of our participants and proxies. We will introduce you to the investigators and staff at the differ-

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ent field and coordinating centers, and share new information as it becomes available. If you have ideas for future articles, please discuss them with your clinic’s staff during your next visit.

The success of the GEM Study would have never been possible without your and your proxy’s commitment to helping us answer difficult questions about aging. Hats off to everyone! ☺

How Do Other Ginkgo Studies Affect the GEM Study?
By Nancy Woolard, Wake Forest University

Does Ginkgo Biloba Prevent Memory Loss?

We still don’t know! You may have heard recent news reports that “ginkgo has no effect” on memory. As with many previous studies, the most recent results were from a study that was small (only 230 participants) and short (six weeks in duration); and participants took only 120 mg per day.

This study tested only whether ginkgo produces better memory; it did not test to see whether ginkgo prevents memory loss. There are many examples of medical therapies that prevent disease but do not improve health. Vaccines are a good example.

Therefore, while these new findings state that there was no difference in memory status between the ginkgo and the placebo groups, the researchers were not at all addressing the ques-

Please call us if...

• You have been hospitalized overnight
• Your personal physician has diagnosed you with a memory problem, a memory disorder, or Alzheimer’s disease
• You have begun taking any of these medications:
  * Aricept (donepezil)
  * Reminyl (galantamine)
  * Exelon (rivastigmine)
  * Cognex (tacrine)
  * Coumadin (warfarin)
• You have questions or concerns about your participation in the GEM Study
  * Johns Hopkins: 301-733-8860
  * UC Davis: 916-734-3219
  * Wake Forest: 336-716-2201
  or 336-716-6193; or 336-574-7255 (Greensboro)
  * Pittsburgh: Call your follow-up staff person (or 412-624-3579)

This is exactly why our GEM Study is so important. Memory changes happen over a period of time—months and years, not weeks. Our study will provide the most conclusive evidence to date on whether Ginkgo biloba does in fact prevent or delay the onset of dementia.

So, thank you—again—for taking part in this timely and important scientific mission! ☺
Three Cheers for Our Proxies!
By Nancy Woolard, Wake Forest University

As a proxy in the GEM Study, you are a vital link to ensuring that our study results are accurate. How does this work?

GEM is a study of memory changes or problems that occur as we age. When people begin to experience changes with memory, they usually learn to compensate or work around these limitations. Because you are personally involved with the participant on a frequent basis, you are in a position to notice these changes and provide us with your perspective.

As a proxy, you will need to be available to the clinic staff every six months to complete a questionnaire about the participant’s memory, habits, and daily activities. In many situations this can be accomplished over the phone, but it is best when it is completed in person.

We appreciate your willingness to give of yourself to this study. Remember: You are also making a vital contribution to the health of our children and grandchildren!

Growing and Processing Ginkgo
By Susan Margitic, Wake Forest University

Last fall, I had the opportunity to find out first hand how Ginkgo biloba is grown and processed. Nestled in the Bordeaux region of France lies a 524 acre ginkgo “plantation.” Monsieur Jean-Jacques Meunier, who oversees the operation of the plantation (which is officially called “S.C.A. du Domaine de Saint-Jean-d’Iillac”), gave my husband and me a tour of the ginkgo fields and the production facilities.

When I think of ginkgo, I think of pretty trees that grow fairly tall; but, to my surprise, the “trees” that provide some of the ginkgo for the GEM Study are quite short.

Winter time is pruning time at the plantation. The ginkgo trees are pruned to varying heights, from about 4 inches to a little over 3 feet, in order to make harvesting of the leaves easier and because leaves grown on “young” wood make a higher quality extract. You can see in the picture below how tall an unpruned ginkgo tree is compared to its short pruned “sisters.”

The ginkgo trees are fertilized in late winter and early spring, and weeding begins in April. This is a big job, because no foreign matter is allowed to contaminate the crops, and no chemicals, pesticides or fungicides are ever used to kill off the weeds or the bugs. So you could say that the GEM Study Ginkgo biloba is “organically” grown! Weeding is accomplished first by burning the weeds (“flaming”), then by using a tractor equipped with specialized at-

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tachments ("mechanical weeding"), and, finally, by good old-fashioned hand weeding.

Irrigation of the ginkgo fields is done from late spring to late summer. Large, portable sprinklers are used to irrigate the 524 acres of land. And it takes a lot of water to make the ginkgo plants happy: about 10 gallons a week for every square yard of land!

The ginkgo leaves are harvested between late summer and early fall. Large, specialized machines that were originally designed to harvest cotton move through the fields, lane by lane, pulling off the leaves but leaving the plants intact.

Within six hours of harvest, the ginkgo leaves are dried in a huge hot air machine with a rotating drum. The leaves are then cooled down and pressed into bales (like hay, only better), after which they are wrapped and loaded into large containers that are shipped by truck to Schwabe Pharmaceuticals, the manufacturer in Germany that purifies the ginkgo and prepares the tablets.

What amazed me the most was the efficiency and quality used during these laborious processes, all the more impressive given that the Saint Jean d’Illac plantation has about 5 million trees and produces more than 700 metric tons of Ginkgo biloba leaves every year. The same high-quality processes are used to grow and cultivate Ginkgo biloba at a plantation in South Carolina. Clearly, the processing of Ginkgo biloba for the GEM Study meets the highest of standards! ✨

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