

BRAIN SCIENCE PODCAST

With Ginger Campbell, MD

Episode #52

Second Annual Year-End Review

Aired December 19, 2008

The *Brain Science Podcast* is a founding member of sciencepodcasters.org, the best place on the Internet to find science podcasts from a wide variety of fields.

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INTRODUCTION

This is the *Brain Science Podcast* – the podcast for everyone who has a brain – and I’m your host, Dr. Ginger Campbell. On the *Brain Science Podcast* we explore how recent discoveries in neuroscience are unraveling the mysteries of how our brains make us who we are. For more information including Show Notes, links to previous episodes, and information about how to subscribe please go to the website brainsciencepodcast.com. We also have a Discussion Forum at brainscienceforum.com, and you can send me email at docartemis@gmail.com.

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DISCUSSION

This is Episode 52 of the *Brain Science Podcast*. This is the Second Annual Review Episode. Before I start I want to talk just a little bit about how this episode is going to be organized, since it’s a little different from my typical episode which is a review of a specific topic or book, or an interview with an

author or a scientist. This episode is organized into three parts. First I'm going to review some of the highlights from this year's shows. I hope this will bring back some of the main ideas for those of you who have been listening all along, and it will encourage those of you who are new listeners to go back and listen to some of these older episodes.

In the second part of the episode I'm going to take some extra time to tell you about the other resources that I have created on the Internet. This is the kind of stuff that I try to announce from time to time but that I tend to forget to tell you. Also, I know there are a lot of you that usually don't listen to the announcements at the end of the episodes. So, I'm trying to put all this information into one place. The third part of today's episode is going to be a look ahead to next year. Please be sure to listen to this part because I'm going to have some important announcements at the end.

We've gotten a lot of new listeners in the last two or three months, so I want to say something directly to you. When I first started doing review episodes—and I usually do one every six months—I imagined that they would be mainly of interest to long-time listeners. But I've gotten a lot of feedback from new listeners who find them useful. So, as I'm going through this episode I'm going to try to keep those of you who are new listeners in mind. But, please drop me an email at docartemis@gmail.com if you have any questions that I have left unanswered.

I would also like to say something about listening to older episodes. With the possible exception of my semi-annual review episodes, all the episodes are intended to be what we podcasters call evergreen; which means I want you to go back and listen to the ones you have missed. But don't feel like you have to catch up right away. While new episodes might not be a hundred percent stand-alone, I will tell you as we go along which older episodes are relevant. Of course, listening to the episodes in order is ideal, but you can listen to them in any order

you want. I'll say a little bit more about how to get older episodes later on in this show.

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For the first part of today's episode I'm going to talk about some of the highlights for 2008. First a little overview. In 2008 there were 17 guests on the *Brain Science Podcast*. That's up from 8 guests during the first year of the show. Also we talked about 14 books, which is down a little because I've started interviewing more scientists who haven't actually written books.

I installed Google Analytics on my website in October, and since I did that I've discovered that the website has been visited by people from 85 different countries. The top 10 countries are the United States, the U.K., Canada, Australia, Japan, Germany, The Netherlands, Taiwan, Brazil, and Russia. That's the top 10 for people visiting the website.

I don't have good numbers for the subscribers or listeners to the podcast, unfortunately. I don't have access to where the listeners are coming from, except for when you send me email. So, I love to hear from you, and when you write be sure to tell me where you live. I really enjoy hearing from people from all parts of the world.

Now, what about listener numbers? It's hard to judge exactly the numbers because subscribers are not the same thing as listeners, because a lot of people listen but don't subscribe. In terms of subscribers I know that we have gained over 1000 new listeners during 2008. That doesn't touch Leo Laporte's numbers, but it's very respectable.

In fact, in December the *Brain Science Podcast* made it to #1 on the iTunes Medicine page for several days in a row. The last time I looked we were at #2.

So, I'm always joking about being discovered by NPR, and I wasn't discovered by NPR in 2008. However, I am very happy to have so many new listeners.

Let's look back on some of the key ideas that we talked about during 2008. We started off the year with an [interview with Dr. Edward Taub](#), who told us about his revolutionary Constraint Induced Movement Therapy for stroke rehabilitation. It's fair to say that Dr. Taub is a pioneer in applying the principles of neuroplasticity to stroke rehab.

Several months after Dr. Taub was on the *Brain Science Podcast* I saw him featured on a *Dan Rather Presents* episode. I think it was called "Mind Science." It was really interesting to see neuroplasticity being featured on an almost mainstream TV show. I think it was on HDNet, and then it was later shown on public television. People are becoming more aware of the idea of neuroplasticity and more aware of neuroscience in general.

During the first part of the year one of the topics that we talked quite a bit about was language. In [Episode 30](#) I talked about language evolution. My discussion of criticisms of Chomsky's theory of the universal grammar module continues to generate quite a bit of feedback. It's funny, because I don't tend to say things that are controversial, but somehow those seem to be the ones that get people's attention.

Chomsky may be the only person whose work I've actually explicitly criticized on the show. If you're listening to Episode 30 for the first time and you think that I have been unduly hard on Chomsky's theory—or even Chomsky—be sure that you listen to the follow-up discussions that I had about this with Dr. Michael Arbib in [Episode 39](#) and linguist Alice Gaby in [Episode 41](#).

Another language-related topic that we talked about during the year was we talked with [Dr. Maryanne Wolf from Tufts about how our brains change when we](#)

[learn to read](#). The fact that people who read in different languages have different changes in their brains is another demonstration of the importance of our brain's plasticity.

Another topic that we talked about during the first half of the year, we talked some more about the importance of embodiment. And we also talked about mirror neurons on several episodes. Then we had one of my favorite guests, Dr. John Ratey, who told us about the emerging evidence of the various beneficial [effects that exercise has on our brains](#).

And then we had Dr. John Medina, the author of *Brain Rules*, who besides exercise offered several other practical pieces of advice about using neuroscience to improve brain health. He talked about the importance of getting enough sleep, and that's something that you've probably been seeing has been getting more attention in the press in the last few months.

He also talked about the importance of understanding that our brains can really only pay attention to one thing at a time—true conscious attention, that is. The bottom line is that multitasking is a myth. If you're trying to do more than one thing simultaneously, mistakes will be made; which is why talking on a cell phone while driving a car is a dangerous activity, even if you have a hands-free set up.

That's the first half of the year, so those are episodes that if you have just started listening in the last few months you will definitely want to go back and catch up on. In the last half of the year one of the highlights for me was the book by Robert Burton, *On Being Certain*. This is the first time that I have done a book discussion with an immediate follow-up interview.

I discussed the book in [Episode 42](#) and interviewed Dr. Burton in [Episode 43](#). In these episodes we talked about how our sense of rightness, or certainty, is generated in parts of our brain that we do not have conscious access to. So, this

really complements some episodes we did during the first year of the podcast when we talked a lot about unconscious decision making.

[Episode 43](#)—the interview with Dr. Robert Burton—is the one that I chose to make into a demonstration disk. I think it's information that everyone can relate to. So, I really suggest if you have someone you want to share the *Brain Science Podcast* with but you're having trouble convincing them that neuroscience is interesting, feel free to burn this episode onto a CD and give it as a gift. That's fine. There are other episodes that are good for this purpose, but this is probably my favorite.

Shortly after I interviewed Dr. Burton I also talked to [Dr. Daniel Siegel from UCLA about meditation](#). I got lots of requests to talk about meditation and the brain, and I think people were pretty satisfied with this episode. But one of the things that came out was the fact that really taking a modern scientific approach toward meditation is just getting started. So, a lot of the models of how meditation interacts with the brain still need to be tested.

Late in the summer Dr. John Ratey came back onto the *Brain Science Podcast*, making him our first return guest. [On his second visit we talked about attention deficit disorder](#). This was another episode that seemed to be helpful to many people, and it brings up the subject of covering diseases and disability on the *Brain Science Podcast*, which is something that I don't do on a regular basis. In 2008 there were two disease-oriented episodes: Dr. Ratey's second interview, which was [Episode 45](#), and [Episode 28](#), which was the one with Dr. Edward Taub talking about stroke.

I think it's probably reasonable to have an occasional episode devoted to a specific disease or problem, but I don't intend for that to become a dominant theme. I'd very much like to have your feedback about this. I'm not talking about giving me feedback to tell me what disease you want to learn more about;

although that's fine. What I'm talking about is for those of you who don't have a particular disease or problem you're interested in, I'd like to hear how you feel about the episodes that are disease- or disability-oriented.

Over Labor Day weekend I did [the first live *Brain Science Podcast* at Dragon*Con in Atlanta, Georgia](#). The episode focused on brain imaging, and I think it was a big success. Then I began a series of three episodes about brain evolution, which is a topic that I have wanted to talk about ever since I started the show, but it's taken me awhile to get the right resources together. I'm particularly proud of the third episode in this series, which was the interview with Seth Grant—which was just our last episode, [Episode 51](#)—because we got to talk about some exciting new ideas.

One of Dr. Grant's most surprising discoveries was the discovery that the vertebrate synapse is more complex than that of invertebrates. This is important because it had long been assumed that synapses were essentially identical between species. So, discovering this difference between vertebrates and invertebrates suggests the possibility that the evolution of complex synapses preceded the evolution of larger, more complex brains.

Also, since some of the signalling proteins are found in single cell organisms like yeast, Dr. Grant has made some interesting proposals based on this. I want to read a quote from [Episode 51](#). Dr. Grant said, “The mammalian and human synapse has its ancestral origins in an ancient set of proteins which predate the first nervous system and are found in unicellular organisms.”

I encourage you to go back and listen to Dr. Grant's interview, because it is outstanding. The episodes about evolution were [Episode 47](#), [48](#), and [51](#). I suggest starting with [Episode 47](#) so that when you get to Dr. Grant's interview you'll have some background to really appreciate the significance of his work.

Another recent highlight for me has been interviewing Dr. Brenda Milner, which was [Episode 49](#). Dr. Milner is a pioneering neuroscientist who recently celebrated her 90th birthday. She is very famous for a discovery she made about memory, especially while working with the famous patient HM, who you may know recently died; and that happened shortly after I interviewed Dr. Milner.

I also got to meet her briefly in person at the Society for Neuroscience meeting which was held in Washington, D.C. in November. In [Episode 50](#) of the *Brain Science Podcast* I shared some of the highlights from that meeting. I didn't do any formal interviews while I was there, but I made a lot of contacts that I hope will be leading us to some good interviews in 2009.

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Before we get into the second part of today's episode I want to tell you about a new website that I am going to be participating in in 2009. As some of you know, last spring I started a website called sciencepodcasters.org as a place where science podcasters can post brief Show Notes with links back to their own sites. It's a group blog, not a podcast directory.

Jamie Davis from *MediCast* and the *Nursing Show* has been an active member of this site. Now Jamie has taken the idea one step further. He has just launched promednetwork.com. His goal is to gather all medical podcasters into one place and to attract advertising.

There are two ways in which our sites are different and therefore complement each other. I am actively looking for non-medical shows for sciencepodcasters.org. The ProMed Network will be exclusively for medical podcasts. Also, while I would welcome advertising on the sciencepodcasters.org website, I don't have the resources or the temperament to attract in-show

advertising. So, if you're a medical podcaster you can learn more about this by going to promednetwork.com.

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For the second part of this episode I want to give you an overview of the resources that I have created on the Internet for you, my listeners. The most important resource is my main website at brainsciencepodcast.com. I want to encourage more of you to visit the website and to subscribe to the RSS feed, because when you subscribe to the feed you get the posts that I put up in between episodes, which is going to be increasingly important in 2009.

So, what are Show Notes? Now, a lot of podcasts have very minimal Show Notes. But I put quite a bit of time into the Show Notes. I try to include links to references, links to the guests, and links to other episodes that are relevant to the given episode.

I have discovered a surprising thing since I started, which is that there are people who come to the website and see it as a blog and never even listen to the show. Which I find a little weird, but I try to make sure the posts will actually be meaningful to these people too. However, for you as a listener, the Show Notes are intended to make it possible for you to follow up the references if you want to, or to learn more if you want to.

I also always include a link to a book if I'm discussing a book, and the link I put on the website is the link to my little Amazon.com store. I get a small credit toward buying books on Amazon if you buy it through that link. They send me a sort of gift certificate thing approximately every three months, and I don't think I've ever made more than \$20, so I'm not asking you to use that because it helps me make any significant amount of money. You might find my Amazon store

convenient since I do make a point of making sure that every book I discuss is available there.

Besides posting content in between episodes, other things that I have on the website include links to other neuroscience sites, links to my little Amazon store, and also a link to the place where you can buy *Brain Science Podcast* gear. I don't use CafePress, so there are not as many different things to choose from. It's just mostly clothing, but it's a much higher quality. You'll find that in the left sidebar.

So, when you go to the website what you want to do is look on the sidebars. On the left and right sidebars is where you'll find the links to a lot of different things that I hope you'll find interesting. Anything that I tell you that you can find on the website when I'm talking, it means that it's either on one of the sidebars or has a tab across the top linking to it.

I mentioned earlier that I was going to tell you how to find older episodes. If you look at the tabs across the top of the website you will see that there is a tab labeled 'Previous Episodes.' And I have it organized so that there is a page for each year of the podcast with a listing of all the episodes and a brief summary. From that page you can link to the Show Notes for any episode that you might be looking for. Also there's a tab labeled 'Guests,' and that's where you can find a list of every guest that has been on the *Brain Science Podcast*. That's the best place to find out easily who's already been on the show and find the episode that they appeared in.

Another important tab at the top of the page is the one labeled 'Donations and Subscriptions.' I was recently doing some bookkeeping to try to figure out how much money I had made from donations in this last year—since I'm going to have to do taxes soon—and I discovered that it was actually more than I thought. But it's certainly not enough that I can give up any ER shifts yet.

I have mentioned in the past that I try to use an NPR model, so I do appreciate listener support. And you can go to that tab to see what the options are. Until recently I was mainly depending on PayPal to do both monthly subscriptions and donations. A lot of people didn't like using PayPal so I've added a post office box, and that seems to be popular with a lot of people. So, there are a lot of different options there for you.

The *Brain Science Podcast* website really doesn't contain any personal content, but it does contain links to everything else that I do, including my other websites. I've talked about sciencepodcasters.org, which is the place to go to find other science podcasts. If you want to get to my other personal links the easiest way is to go to gingercampbellmd.com. That goes to what I have in the past called my unified blog, so it has brief posts for the *Brain Science Podcast*, and also the Show Notes for *Books and Ideas* which I recently moved to that site, other blog posts, and personal links to things like social sites.

Besides the *Brain Science Podcast* website we have the Discussion Forum which is at brainscienceforum.com. That's probably our most valuable community resource because that's the place where listeners share their ideas with each other. It's better than sending me email—although I love to get email—because if you post something like what you thought about a certain episode up on the Discussion Forum, then you can get feedback and interact with other listeners. It's also better than posting it as a comment on the website because people are more likely to see it in the future than if it's just a comment to a blog post. The Discussion Forum also contains a section devoted to my other podcast, *Books and Ideas*.

Now, in terms of sharing neuroscience news, I have kind of moved away from putting up blog posts that are just pointing at other sources of information. Instead what I'm doing is I'm using two tools. If you use Friend Feed, we have a

room in Friend Feed for the *Brain Science Podcast*, and it's set up so that I can post anything I see on the web related to neuroscience.

I post it automatically into this Friend Feed room, and I use this by giving the item a del.icio.us tag, 'brainsciencepodcast.' And the feed to the room is set up so that it gets everything tagged 'brainsciencepodcast.' So, if you see something good, all you have to do if you use del.icio.us, is tag it 'brainsciencepodcast' and it will go into the Friend Feed room.

It will also go into a news site that I recently started working on, which is on Social Median. On the Social Median site I have something called the Neuroscience News Network. The idea on Social Median is to allow people to build networks that pool various sources of news that they normally look at. It puts it all into one place using a combination of adding feeds and keyword searching. And I've got it fixed so that everything that goes into the Friend Feed room will go into the Neuroscience News Network.

So, if you are using Friend Feed, then I'd use the Friend Feed room, and if you are using Social Median I would use that. Both sites are set up so that if you want to add sources to help enrich the site you can. You can share specific items to either source as you see fit, so it's a great place for sharing resources.

That brings me to the subject of social sites. If you do any kind of work on the Internet you know that social sites have become very important to promoting whatever you're trying to do. I'm not one of those people who sits on Twitter all day long, but I do enjoy Twitter and I also participate in the TWiT Army Canteen. I do have a MySpace page and a Facebook page. I tend to be more active on Facebook than I am on MySpace.

On most social sites you'll either find me under my real name, Ginger Campbell, or under my favorite Internet name which is Doc Artemis, just like my email

address docartemis@gmail.com. So, if you're looking for me, just look for Doc Artemis. And if you happen to know of another social site that you think would be appropriate for finding or sharing the *Brain Science Podcast* please let me know.

When it comes to Facebook there is also a Brain Science Podcast Group on Facebook. It's got quite a few members, but I have to admit that I am not that active on posting content to this group because there's not an automatic tool. There's a tool for automatically posting stuff to your personal profile, but it takes an additional several steps to get it into the Brain Science Podcast Group. So, I find it hard to find time to do that.

If there's anyone out there who is really into Facebook who would like to spend some time building up the Brain Science Podcast Group, please let me know. I'd be happy to add you in as an officer—I think they call it—and give you some privileges so that you can help me with that. But I have made a lot of good contacts on Facebook. I've gotten new listeners, both from Facebook and Twitter, so I definitely think it's worthwhile.

Some other things we have that I consider sort of community tools, we have a Flickr group. It's called the Brain Science Podcast Community Group on Flickr. I've been trying to get listeners to put up pictures of where they live and I haven't gotten as much participation as I would have liked. I'm not sure whether that means Flickr is not as popular as it was a couple years ago, or it's just that you are like me and you're just really busy.

But, if you use Flickr I hope you will join our Brain Science Podcast Community Group on Flickr and share a photo in the group from time to time. I do have the website set up so that the Flickr pictures automatically appear in the left sidebar. They change randomly, so I can't really tell you when a picture you post would

end up in the sidebar, but if you'd like for one of your pictures to be on the website you have to post it to the Group on Flickr.

One thing that hasn't seemed to catch on is the Frappr Map. I'd like to be able to have something that was some kind of map tool where I could see where my listeners live, because it's really interesting to me. So, if anyone knows of a better alternative to Frappr that's a place where people can kind of put a pin to show where they live, please drop me an email at docartemis@gmail.com.

One of the things that I bring up from time to time is talking about how you can help promote the *Brain Science Podcast*. Although I put a lot of effort into promoting the show, word of mouth continues to be extremely important. I hope that you will continue to tell your friends and colleagues about the podcast. I often get emails from people telling me that they are telling everyone how much they like the show, and I really do appreciate that.

I'd like to mention that you can tell people to go to the website, brainsciencepodcast.com, even if they don't listen to podcasts. And of course, if you blog, you know how much I appreciate your links. Leaving reviews on iTunes is extremely important, so if you have a chance to leave a review I'd really appreciate it.

There are other sites that used to be really popular before iTunes kind of became so dominant: places like Podcast Pickle, Podcast Alley, and then of course Digg. If you happen to be a person who uses any of these sites I would really appreciate it if you would rate my show and put a review on whichever one of these sites you are using.

If you use a different tool for getting your podcast, it would help me a lot if you would look and see if it has a method for posting user reviews or posting ratings, because when somebody comes to a listing of a podcast on one of these smaller

sites and they don't see any ratings and they don't see any reviews, they are less likely to try it out. And then, of course, if you are using Twitter or any of these other social sites and you listen to a podcast, feel free to Tweet, 'I'm listening to the *Brain Science Podcast*.'

Last, but not least, I want to take a moment again to thank those of you who have made contributions to the *Brain Science Podcast* in the last year, and those of you who have blogged about it and done various things to help to promote the show. Whatever you're doing it's working, because we've got lots of new listeners. But I still feel that there are a lot of people out there who would enjoy the *Brain Science Podcast* if they knew about it. So, I'm counting on you to help me get the word out in 2009.

One thing about people sending me contributions through the mail: the first few contributions that I got, I kind of forgot when I deposited them into the bank that I wasn't keeping a copy of the check. And so, there are a few of you who I don't really remember for sure exactly how much you contributed.

It would be very helpful to me if you would drop me an email just reminding me how much you sent me, so that I can keep my records accurately. I now have a system for writing it down, but I just forgot to do this at the beginning. Basically, if you sent out a check before December, I'd appreciate you just dropping me a brief email if it's not too much trouble.

And, of course, I appreciate very much your donation. I've been sending out postcards to the people who send me donations via mail. So, if you haven't heard back from me, please do go ahead and drop me a line so that I can confirm with you that I did receive your check and you won't be wondering.

And on the subject of answering email, both of my podcasts are still small enough that I try to answer all of the email that comes my way. The time that I'm most

likely to forget to answer an email is if I happen to read it on my iPhone when I'm at work, because then it doesn't automatically get flagged like I do when I'm at home.

So, if you write me an email and you don't hear from me within a week I may not have gotten it. It won't make me mad if you write me back if it was something that you needed a response to. Believe me, if I ever get to the stage where I don't answer email, I'll let you know. One reason why I encourage people to participate in the Discussion Forum is that it helps to keep the email volume at a manageable level.

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For the last part of today's podcast I want to take a look ahead to 2009 and give you an idea of what to expect. First you might wonder how do I choose the topics that I cover on the *Brain Science Podcast*. Obviously neuroscience is such a huge field that if I recorded a show every single day of the year, topics would remain uncovered. Ideas mostly come from books, and sometimes from things that I see on the Internet. For example, Art Glenberg—who gave [a very excellent interview about embodiment](#)—I found Dr. Glenberg via a post that he put up on the *Scientific American* blog.

Another source of ideas is, of course, listeners. I get lots of suggestions from listeners, and unfortunately I can't follow through on most of them. However, I hope you will continue to send in your suggestions. For one thing, if I see something suggested to me by more than one person I'm much more likely to start giving it serious consideration. For example, I know everyone wants V.S. Ramachandran to come onto the podcast. And I'm still working on it. So, please keep on sending in your suggestions.

I already have some guests lined up for 2009 including Eric Kandel, who I think I have mentioned before, and Patricia Churchland, who is a very well-known philosopher in the area of philosophy of the mind. And I met several other people at Neuroscience 2008 that I hope to interview during the year.

In terms of topics that I have in mind for 2009, when I talk to Dr. Kandel it will be a good opportunity to return to the subject of memory, which we haven't talked about specifically in a while. I am working on an episode on pain. This is a topic that's probably even more difficult than evolution to try to pin down in a way that I can put it into a podcast, but I'm working toward that.

Another subject that I have wanted to cover for a long time is vision, and I am hoping that will become a reality in 2009. I'm hoping to return to the subject of emotions, because we haven't really talked about that since early on in the show. And I'm seriously thinking about doing an episode about traumatic brain injuries, because this is an area that seems to have affected many of my listeners, and also with the veterans coming back from Iraq and Afghanistan it seems to actually be reaching epidemic proportions. That one is still in the very early planning stages, so if you have any suggestions for references or guests on that, feel free to let me know.

Now, one topic that I intend to give some extra attention to in 2009 is the area of the philosophy of mind. You might wonder why I would cover a philosophical area on a brain science podcast, but philosophy of mind is an area where philosophy and science come together—especially in terms of asking the big questions. The key question that I am working on addressing, hopefully within the next few episodes, is the question does a physical explanation for the mind rob us of free will.

I'm reading this really interesting book called, *Did My Neurons Make Me Do It?* and I'm hoping that I'll be able to get an author interview from one of the authors

of this book. They argue basically that the answer to the question is no. They argue that a physicalist explanation of the mind does not necessarily have to be reductionist, and they argue that it's only the assumption of reductionism that implies that a physical explanation would rob us of free will.

Don't worry if that sounds a little esoteric. I promise that when the episode comes out I will bring it down to earth where you can make sense of it. It's a very important issue because it looks like the creationist, or intelligent design movement is going to be attacking neuroscience as their next front, so we need to be prepared for making sure that they don't distort what neuroscience is really doing.

I mentioned that I was going to be interviewing Patricia Churchland. She wrote a fairly well-known book called *Neurophilosophy*, and she is one of the pioneers in the whole idea that the philosophy of mind should be based on actual science. So, that's why I want to have her as a guest.

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During the First Annual Review of the *Brain Science Podcast* I announced my intention to follow the NPR model of having a listener supported podcast, and I explained that I didn't think advertising was going to be a very significant source of income. In 2008 I did make more money from advertising than I did from listener donations. Unfortunately, human nature being what it is, a relatively low percentage of listeners actually has contributed.

And I did have a fairly successful ad campaign with U.S. Navy Medicine that ran through several months. It actually ended early because we went over the projected number of downloads before the official six months was up. If you live outside the United States you never heard the U.S. Navy Medicine ads because they were only inserted into the feed for American listeners.

I'm really not sure what the prospects are for advertising in 2009. The rumor is that Internet advertising and probably podcast advertising will be going down, just because of the general economic downturn. But even so, the basic fact that this show doesn't have the kind of huge subscription numbers that are needed to make advertising a significant source of income, that hasn't changed.

Here's the bottom line. The *Brain Science Podcast* doesn't have enough listeners to make a lot of money with advertising, but it does have enough listeners to generate a significant amount of donations if more people were willing to give. But realistically I doubt that the percentage is going to change very much. However, if you've been thinking about giving but you just keep forgetting to do it, I just want to remind you that it really does matter.

Why do I care about money? Isn't this just a hobby? Well, I think that I have maybe occasionally mentioned in the past that there's quite a bit of work involved in making this show, and my long-range goal is to be able to generate enough income to be able to reduce the number of hours I have to work in the emergency room, just because I'm getting older and it's a stressful job and I'd rather be doing podcasting.

So, what am I going to do if I can't get more listener support? I'm trying to pursue other sources of funding. The reality is that it's very hard to get grants as an independent publisher not associated with a university. It may be that at some point I can find some kind of philanthropic institution that wants to support the show, but so far that hasn't come into being.

Right now I'm hoping that I'll be able to establish a closer relationship with the Society for Neuroscience, but I don't yet know whether that's actually going to translate into anything in terms of actual financial support. So, for now, you the listener are my most reliable source of financial reward.

That brings me to the first new thing I'm going to announce today. After much soul searching I have decided that I'm going to cut the frequency of the *Brain Science Podcast* back from twice a month to approximately once a month. This will allow me to have more time to prepare for episodes. There is a lot of preparation involved in doing the *Brain Science Podcast* because I'm generally trying to boil a fairly complicated subject down into a concise presentation, and that takes a lot of work.

Also, I do a lot of editing of each episode—even the interviews—because my goal is to have something that is as close to audiobook quality as I can, rather than a typical sort of throw-away podcast. That goes back to the whole goal of having evergreen content. So, this has been putting me under quite a bit of time pressure trying to continue to put out a show every two weeks, putting me in significant danger of burn out. So, that's one of the reasons why I have decided to cut back.

It's really a suggestion that came to me from several sources that I initially rejected. And then I began to think about it. Well, for one thing, I discovered that some of my most loyal listeners aren't caught up on the episodes. I was thinking that putting a show out every two weeks was something that people could keep up with. But I have discovered that most of you are having a hard time keeping up with two episodes a month. Now, I know there are those of you who could listen to an episode every day, but you just have to recognize, again, you're the exception.

And then the people that are coming on board that are new listeners, and they look and they see that they've got 50-plus episodes to listen to to catch up—I suspect that could be a little intimidating. So, by spreading the episodes out to about once a month, the average listener should be able to keep up and the new listener will have more time to get caught up with the old episodes.

But I'm not just going to be goofing off during the extra free time I'm creating. One of the things I haven't been able to do in the last year—except for when I make a specific trip or something—is I've been having a lot of trouble finding time to do the things I need to do to promote the show because I'm constantly working so hard to get the next episode out. So, I'm hoping that by decreasing the frequency I'll have a little bit more time for promoting the show, and maybe even finding a little bit of financial backing.

The other thing I want to do—this is my second announcement—I am going to work on putting more content on the website. And I was thinking about how to do this, because up until this point I have been doing everything myself—and I'll come back to that in a minute—and I realize that if I'm going to expand the content I really need some help. And so, I've decided that what I'm going to do is I'm going to start adding contributors to the blog that's on the website—in other words, people that will be putting up posts on the website in between podcasts.

Now, I have a few people in mind. I haven't had a chance to send out any invitations yet. If you would like to be a contributor you can just drop me an email at docartemis@gmail.com. In general what I'm looking for is people who can write in a very clear and concise manner, and can provide content that is consistent with the spirit of the *Brain Science Podcast*, which is basically sharing neuroscience with everyone else.

The benefit that anyone who contributes will have will, of course, be being able to link back to their own website. And hopefully if you have your own blog, that will help with your blog's traffic. One reason I want to do this is that podcasting has kind of been a little bit flat for catching on. Still most people that are using the web are not listening to podcasts, so I feel that it's important to put more content up on the website.

And I guess that I should while I'm at it just talk a little bit more about getting help, because this is something that I probably need to be more open to. I have put this show out for two years doing everything myself—except my husband helped to set up the Discussion Forum. But I manage the forum, I do everything on the website, I do all the audio production, I do all the editing. I do everything.

And, like I said, my show takes more prep time than the average podcast, both in terms of preparing the material and in terms of editing. It's a full-time job. And I don't anticipate that the amount of time I spend on it is going to change that much just because I put out fewer shows, because there's just so much stuff to do.

And I've been a little bit reluctant to give up any kind of control over all the stuff I do myself. But if there's anyone out there—I've already been talking to a few of you about things that can be done to help—if you have any ideas, or suggestions, or ways you would like to contribute to the website, the Facebook group, or maybe setting up something new and different that I haven't even thought of yet, please feel free to contact me.

The real reason I got into podcasting was because of my desire to be part of a community. And it turns out that that actually has two elements. One is being part of the community of podcasters, and the other is this community that is made up of you, the people who listen to the podcast.

And I know that might sound a little corny, since it's a science podcast and most of the other science podcasts are extremely impersonal and don't really have anything like a community associated with them. So, I guess I'm kind of bridging genres there. And, for those of you who just want to listen to science content and don't want to have any community component, that's fine too. That's the reason why I don't generally put that kind of stuff into the show. This episode is an exception.

So, before I go I guess I should just review the key announcements, which are that I'm cutting the show back to once a month—at least for the foreseeable future—but I hope that will make it possible for me to continue on doing it without getting burned out or suffering from the infamous podfading. And, I'm going to be looking for people to contribute to the blog, so you should contact me if you're interested in doing that. And, of course, as always I need your support, both in promoting the show and I'm also looking for new ideas.

I think I forgot to mention that there's also an audience survey on the website that you can do. So, if you haven't done that, just click on that when you visit the website. Again, the website is at brainsciencepodcast.com. If you are a person who listens to the *Brain Science Podcast* regularly but you don't subscribe, I hope you will consider subscribing.

I almost forgot to mention my other podcast, *Books and Ideas*, which has been monthly for awhile. I recently recorded a follow-up interview with Dr. Frank Wilczek, the Nobel physicist, because in his first interview we didn't get around to most of the questions I wanted to ask him. As soon as I get this episode out into the feed I'm going to start working on editing that interview. I will be trying to get that interview out before Christmas, so please look for that at booksandideas.com, or you can also find it at gingercampbellmd.com.

[music]

Thanks again for listening. I look forward to talking to you again next month.

[music]

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