

Science AMA Series: Hi, I'm Joe Palca and I work at National Public Radio (NPR) as a Science Reporter. I've been a science journalist for more than 30 years. AMA!

joesbigidea¹ and r/Science AMAs¹

¹Affiliation not available

April 17, 2023

Abstract

Hi Reddit, I've been a science reporter for more than 30 years. I have a PhD in Psychology from UC Santa Cruz. I have worked at Nature, Science, and now NPR. Over the years I've traveled around the world covering science stories: from to the South Pole to the top of Mauna Kea, to inside the plume of the Eyjafjallajokull during its eruption in 2010. I've been at the Jet Propulsion Laboratory while 5 different probes successfully landed on Mars, I've been to Stockholm to watch the King of Sweden award the Nobel prizes, and I've interviewed many of the world's top scientists: Jim Watson, Francis Crick, Carol Greider, Martine Reiss, Andrea Ghez, Roger Angel, Jennifer Doudna... you get the idea. I host a series called Joe's Big Idea that focuses on the minds and motivations of scientists and inventors. The "Big Idea" is to present science not as a set of discoveries but a process of understanding. Most of the news media depict science lurching from breakthrough to breakthrough. I want to show the hard work, frustration, creativity, persistence and occasionally joy that truly represents what science is all about. Want to see what I'm up to and chat with me after this AMA? Message me and follow me on Facebook at Joe's Big Idea. I will be back at 1 pm Et to answer your questions, Ask me anything. I am blown away by all the interesting questions. You have set the bar very high. I've been writing answers for a couple hours now, and if I could only type faster, I'd answer more. I hope this discussion we started today can continue. I'm very committed to accurate communication of science, and welcome thoughts, ideas, and critiques going forward. I'll watch /r/Science for questions going forward, or you can get in touch via the Joe's Big Idea Facebook page or joesbigidea@npr.org

[REDDIT](#)

Science AMA Series: Hi, I'm Joe Palca and I work at National Public Radio (NPR) as a Science Reporter. I've been a science journalist for more than 30 years. AMA!

JOESBIGIDEA [R/SCIENCE](#)

Hi Reddit,

I've been a science reporter for more than 30 years. I have a PhD in Psychology from UC Santa Cruz. I have worked at Nature, Science, and now NPR. Over the years I've traveled around the world covering science stories: from to the South Pole to the top of Mauna Kea, to inside the plume of the Eyjafjallajokull during its eruption in 2010. I've been at the Jet Propulsion Laboratory while 5 different probes successfully landed on Mars, I've been to Stockholm to watch the King of Sweden award the Nobel prizes, and I've interviewed many of the world's top scientists: Jim Watson, Francis Crick, Carol Greider, Martine Reiss, Andrea Ghez, Roger Angel, Jennifer Doudna...you get the idea. I host a series called [Joe's Big Idea](#) that focuses on the minds and motivations of scientists and inventors. The "Big Idea" is to present science not as a set of discoveries but a process of understanding. Most of the news media depict science lurching from breakthrough to breakthrough. I want to show the hard work, frustration, creativity, persistence and occasionally joy that truly represents what science is all about. Want to see what I'm up to and chat with me after this AMA?

Message me and follow me on Facebook at [Joe's Big Idea](#).

I will be back at 1 pm Et to answer your questions, Ask me anything.

I am blown away by all the interesting questions. You have set the bar very high. I've been writing answers for a couple hours now, and if I could only type faster, I'd answer more. I hope this discussion we started today can continue. I'm very committed to accurate communication of science, and welcome thoughts, ideas, and critiques going forward. I'll watch [/r/Science](#) for questions going forward, or you can get in touch via the Joe's Big Idea Facebook page or joesbigidea@npr.org

[READ REVIEWS](#)

[WRITE A REVIEW](#)

CORRESPONDENCE:

DATE RECEIVED:

May 04, 2016

DOI:

10.15200/winn.146229.97867

ARCHIVED:

May 03, 2016

CITATION:

joesbigidea , r/Science ,
Science AMA Series: Hi, I'm
Joe Palca and I work at
National Public Radio (NPR) as
a Science Reporter. I've been a
science journalist for more than
30 years. AMA!, *The Winnower*
3:e146229.97867 , 2016 , DOI:
[10.15200/winn.146229.97867](https://doi.org/10.15200/winn.146229.97867)

Do you ever get frustrated whenever science reports from other news sources get the facts or details of a topic wrong? Do you have any particularly egregious examples to share?

[Piconeeks](#)

Yes, I get frustrated. But mistakes happen. The problem arises when I feel that someone just doesn't understand what he/she is writing about, or when she/he is pressured, either by an editor or misguided self interest, into making a story sound more exciting than it is. The most famous example is an article by Gina Kolata in the New York Times about Judah Folkman's work with anti-angiogenesis drugs to treat cancer. <http://www.nytimes.com/1998/05/03/us/hope-lab-special-report-cautious-awe-greets-drugs-that-eradicate-tumors-mice.html?pagewanted=all> Gina's a terrific reporter, but she erred in this instance by using a sensational quote: "Judah is going to cure cancer in two years," said Dr. James D. Watson, a Nobel laureate who directs the Cold Spring Harbor Laboratory. Even if Watson wasn't trying to wind Gina up, and I believe he was, she should have known better than to use a ridiculous quote like that in a front page story.

Outside of NPR, what news source do you trust on Science Journalism?

© et al. This article is distributed under the terms of the [Creative Commons Attribution 4.0 International License](#), which permits unrestricted use, distribution, and redistribution in any medium, provided that the original author and source are credited.



[chakrablocker](#)

As shown below, there are many good places. I've been impressed with STAT news and The Conversation. But the truth is I don't completely trust anything I haven't reported myself.

What are your thoughts about the release of the scientific research articles through Sci-hub.io?

Does the world benefit more from keeping these documents behind paywall or being out and available for other researchers?

[baudeagle](#)

I am always in favor of making scientific research articles "freely" available. But it's really not fair to call any of the scientific literature "free." Somebody is paying for the cost of servers to store the articles, editors to edit the articles, reviewers to review the articles. Even when scientists "donate" their time to do the journals, it still costs something in the sense that it's time spent not doing research. If "freely" sharing is something we all believe in, then we all have to decide how much we're willing to pay for it.

Hi Dr. Palca,

How do you feel about where science communication is going? I grumble with other grad students about certain BuzzFeed-like science platforms that don't seem to care too much about getting the science right, as long as it gets clicks.

At the same time, there are many excellent journalists and communicators out there who can have a hard time striking that balance. Where does the trade-off between journalistic accuracy and having something interesting enough to get attention lie?

[superhelical](#)

I am actually quite optimistic about the future of science communication. There's a temptation to wring your hands and tsk-tsk-tsk about popular web sites distorting and/or sensationalizing science, and I'm not going to say that doesn't happen. But your choice to single out BuzzFeed is an interesting one. Virginia Hughes is now the science editor over there, and people like Dan Vergano and Peter Aldous have been writing for them. These are excellent science writers. I think there will always be an appetite for good science writing...the trick will be for some smart businessperson to figure out how to make money from it. Also, I don't think journalist accuracy and interesting stories are at odds with one another.

Hi Joe, what is your impression of the changing attitudes among scientists over the past 30 years? My advisers and other scientists who have been in the game that long always seem to speak very fondly of the good old days, when things were easier and the funding flowed more freely. Nowadays, young scientists fight like hell just to stay in the picture. It's like the opposite of "in my day, we had to walk uphill in the snow both ways"

[Bill Nihilist](#)

There's always been some kind of squeeze on funding...and it was guaranteed to get worse by expanding the pool of new scientists far faster than any reasonable increase of funding could support.

Hi Dr Palca, I am currently the science editor for my university newspaper, do you have any advice to increase readership and also any advice for getting into science journalism in general?

[wocongming](#)

Make scientists into real human beings in your stories. Don't just quote them as experts...get them to open up and tell memorable stories about themselves and their work. Another idea...spend millions of dollars promoting the newspaper and hire the best writers in the world. As for getting into science journalism...study the style of writers that you like and try to emulate it...and be prepared to be relentless in your effort to sell stories or find a steady job.

What is the hands down absolute most interesting thing you have learned from your position as a science journalist ?

[DoubleHeliix](#)

Impossible to say. I tend to think whatever I'm working on at the moment is the most interesting thing I've learned...and then another story comes along and supplants that. For example, I am now gobsmacked that anti-CTLA-4 drugs allows a cancer patient's own immune system clear the cancer from his/her body....and that the realization that such a drug might work only emerged from understanding the basic biology of t-cells. But tomorrow it might be what's causing Fast Radio Bursts.

In your opinion, what is the most detrimental pseudo science being pushed on us right now?

[93is42](#)

I'd say the spurious link between vaccines and autism.

Hey Joe! Thanks for doing this, I love your segments on NPR.

How do you balance the need to make science accessible to lay people, with the need to address complexities in the subject?

[LewdSkywalker](#)

This is a false dichotomy. Look, CRISPR-Cas9 is a complex system tool to describe, but the implications are broad because what it can do (edit genes) is accessible. I'm not telling people how to use CRISPR-Cas9. I'm telling them what it can do and what some of the implications are.

Thanks for doing the AMA! What are your thoughts on how the media portrays/how much airtime is given to anti-science positions and postulating by politicians and political groups?

[hausboys](#)

I'm appalled.

Dr. Palca, I am a huge fan of NPR and their coverage and real quick I wanted to thank you for the hard work that goes into NPR's reporting. My question is sort of complex but I've never been able to ask someone in the business about it. In my field of study, computer science, I constantly hear news

reports about facial recognition or AI or just pattern recognition in general and a common concept that just isn't discussed is [precision and recall](#) which is bizarre because that makes a huge difference when reporting results. I'm aware of a similar problem with [p-values](#) in economics, psychology and other huge fields. It's quite vexing that these concepts and a brief explanation are not included in the reporting. So my question is: do you foresee any time in the future when these will become commonplace in the news? Have you ever reported on this or what might be viewed as "tedious" concepts like them? Are you limited in your reporting to a certain level of education (say, high school) by your editors and bosses? Am I simply barking up the wrong tree and instead should I just try rely on prepublications and peer reviewed journals for my news?

[eldavojohn](#)

This a great question, but really hard to answer in a granular sense. I think you have to think of the media as a blunt tool for describing complex issues. By necessity, complete fidelity to detail is impossible...that's why scientific articles with their charts and tables and graphs and supplementary material take up so many megabytes of storage. But in the broader sense...if there's a story that is misleading because it leaves out crucial details (or includes less relevant ones), that's bad. My editor Geoff Brumfiel says the trick is to be vague but accurate...that's a great way to think of it.

What's your take on the climate change reporting situation on NPR?

I'm referring specifically to this, reported a few years back;

[NPR Guts Its Environment And Climate Reporting Team, Becomes 'Part Of The Problem'](#)

Has anything changed since then?

[ademnus](#)

I think that headline was a bit misleading. But yes, we don't have as many reporters as we once did wholly devoted to covering climate change. But in a way, it's a bit like criticizing us for cutting back on our reporting on the link between cigarettes and cancer. It's still an important public health problem, but there's no longer anyone denying the link is real. I don't believe there are any credible scientists who deny that it's impossible to see a signature of human activity of the global climate. Will telling people that ad nauseam change deniers' minds? I doubt it.

Hello Joe!

Is there a story you'd love to report on, but managerial or legal pressure has forced you to back off?

[BigCommieNat](#)

No. Never.

In your opinion: is there a way (in foreseeable future) to stop, prevent or marginalize obnoxious conspiracy theories such as vaccinations - autism link? Also, to put an end to GMO fear-mongering, miracle detox/weight loss products and to debunk and discredit the proclaimers of such nonsenses?

[jetrica](#)

It makes me sad to say so, but I think the answer is no.

Hi Joe, big fan. Thanks for doing this. I have a couple questions:

What do you think is the best change in science reporting since you started? What about the worst?

Did you get your PhD before or after you became a reporter, and do you think science reporters should have advanced scientific training?

What was the most surprising story you've ever reported?

[patsully98](#)

Best change: The internet. You can find accurate questions to any question. Worst change: The internet. Often had to tell what's accurate and what's not, and inaccurate information never gets permanently erased. PhD came before reporting. Most surprising story? That someone took the time to write a scientific article about why a spinning hard boiled egg flips up on its end like a top....and I suppose why a seasoned science journalist like me would choose to report on it.

<http://www.npr.org/templates/story/story.php?storyId=1140665>

Being a scientist in training, I always love to hear the passion behind an explanation from my professors. Were there any particularly profound explanations, from your impressive list of interviewees, that summarized a difficult concept both artistically and scientifically?

[tantalizing_tooter](#)

I really loved Sir Harry Kroto's description about the discovery of buckyballs. I wish I could share the entirety of our interview...it was all sublime, but way too long for the radio format.

<http://www.npr.org/2015/10/08/445339243/a-discoverer-of-the-buckyball-offers-tips-on-winning-a-nobel-prize> I should point out he was very upset by the choice of headlines...I didn't write it.

What is a science fact that you were unaware of, and sort of blew your mind when hearing?

[Ill_Killa_Bitch](#)

I love this question, too...but I can't think of an answer at the moment. I'll get back to you. Does your mother know that's your reddit username?

Joe,

What goes on in your mind when a major science story breaks and you know you're going to be the on air several times a day to cover the news?

Also, what happens at NPR when a major science story breaks? Do you get a text that says, "Get to the airport, NOW!?" Do producers give you guidance on what aspects to cover or is that up to you?

Glad to see NPR on Reddit. THANKS!

[Spin737](#)

I won't lie, it's a rush when a big story breaks, and you're it. The part I don't like is most of the time with big stories you have to work with very little info at first, and you have to be careful not to say more than you really know. There aren't a lot of unexpected Big Science stories. I got tapped when Columbia broke apart, and a couple other times, but it's usually been to sit in the studio and explain what was happening. The one time I got the "get to the airport, now" instruction was when my editor decided to

send me to Iceland to cover the Eyjafjallajökull eruption. That was a hoot. Drove into the plume with some geochemists. A real trip. <http://www.npr.org/templates/story/story.php?storyId=126089707>

Did you have prior background in journalism/writing in any form when you decided to go into science journalism?

[bootmylife](#)

No real journalism background. I was sports editor for The Student Life newspaper as an undergrad at Pomona.

You all (@ npr) are doing a really good job covering the zika virus.. What health concerns in the past years have you had to keep silent (on the radio or type) because of officials silencing you or the risk of a massive public hysteria evoking?

[modest_radio](#)

I have never been in a situation where I was told to keep silent about a serious public health threat. Never. Sometimes I feel I am told to report more than I'd like to about threats that I didn't think were that significant: mad cow disease comes to mind. As far as I know, the rate of Creutzfeldt-Jakob disease has not been soaring.

Hi Dr. Palca, thank you for doing this AMA!

I dream of doing what you do for a living, and am trying to materialize it. A few years ago, I reevaluated all of my education and work experience, and realized it was all wrong. I have since enrolled in a second master's degree in Education - specifically Science and the Public. I have no regrets, but like anyone else, if I was starting school today, I would have pursued philosophy and journalism, and am working to correct that now.

I am trying to read as much as I can, practice writing and working to become connected with scientists locally at the state university in my area. I love to discuss natural philosophy with others, stay informed of current efforts in research and love to write, and am actively working to become a Science Reporter, sharing what you call your "Big Idea" to the public in general: the process of science and why it works. I completely agree with you that there needs to be a better emphasis on that process of understanding, and while I am not a scientist, I feel that I can best contribute by effectively communicating science at a foundational level.

My question is: as someone who has become successful in doing so, what advice would you have for someone who earned their undergraduate degree in business, worked in a scientifically unrelated office for almost a decade, and who now at 30 years old is making a career change towards Science Journalism? Where/how do you recommend I proceed and what in your opinion should I be doing specifically to gain the best experience as I work to effectively communicate science to the public?

Thank you!

[Greypop](#)

My advice is to drop me an email joesbigidea@npr.org or message me on my Joe's Big Idea facebook page. I am trying to help people in your situation with something I'm calling FOJBI (Friends of Joe's Big Idea) which you are welcome to join.

Have you ever considered changing your name to AI?

[Lunar_Havoc](#)

Never. I have thought about changing it to Joe Paca.

Mr. Palca, I often find that people forget that science is a method for learning about anything and not a separate area of knowledge. How can science educators and journalists help with the education of the general public about the basics of the scientific method?

[beernutmark](#)

That's my goal when I started "Joe's Big Idea." Join me in that quest. We need to build a community of people who understand your premise.

Do you worry about the fact that technical competency, and the power that comes along with it, is becoming available to younger and younger people who have not yet had enough life experiences to develop the compassion and judgement required to use this power appropriately?

[cosmotravella](#)

Sure I worry, but that's only because I'm old. I didn't worry when I was young. I was right not to then and the world didn't crumble, so I'm probably safe not worrying about that now.

Hey Dr. Palca!

Thank you so much for taking the time to do this! I'm a student finishing undergrad now, about to start in a PhD program in Neuroscience. I used to think I wanted to focus my life on research, but recently I've been thinking seriously about science journalism for the exact reasons you seem to be passionate about it.

So... how did you decide this was worth pursuing? What is it REALLY like? Any advice for someone interested in getting their feet wet with science journalism?

[cgable](#)

What is it really like? I could tell you, but then I'd have to kill you. I decided science journalism was worth pursuing because I couldn't imagine doing anything else that would be more fulfilling and enjoyable. If you feel that way, go for it. It's like a life-long learning course you get paid to take.

Hi Joe, thanks for doing this. You've given a rather extensive list of all the places and things you've been to see. Science related or not, what are the next three things or places you'd like to go/do that you've never been to or done before?

[acrnoBrnja](#)

I want to go to La Silla and the Atacama desert and Cerro Tololo to see the telescopes there. I want to go to Istanbul to see Hagia Sofia I want to go back to Hong Kong and gorge myself in a dim sum palace.

Here's a simple question: If you could interview any scientist in history, who would it be and why?

[Proteinacious](#)

Leonardo DaVinci. I saw an exhibit of the Codex Leicester in Minneapolis last year, and I was blown away. The man was hundreds of years ahead of his time in science, and not a bad artist, either.