

How Biochemistry Led Me to the Creator | with Dr. Fazale “Fuz” Rana

(November 28, 2023)

DAN:

Welcome to another episode of a very interesting conversation with Dr. Fuz Rana from Reasons to Believe. You can go to Reasons.org and look at their website. You'll find a wealth of information there. And we're going to get some background today from Fuz on how you become a Christian and how you got into Reasons to Believe, and what your focus might be. It seems that Dr. Hugh Ross, who was interviewed recently, certainly covers the macro, if you will, the macro of creation. And you come at it from microbiology and the micro of creation. So, it really fits well together. You guys work phenomenally together. And I'd like to hear about your background, a bit of a biopic, and then the ministry itself with its scholars and what its focus is. And then I wanted to cover one topic just out of interest. So, if you could give us your background.

FUZ:

Well, Dan, first of all, thanks for taking the time to have me with you. And yeah, you know, I didn't grow up in a Christian home. It's actually a bit of an unusual home that I grew up in. My father was a Muslim. He came to the US from India through Canada. He was a nuclear physicist. And my mom's family was from Germany. She was a non-practicing Catholic. So, when they married, there were two different faiths represented in the house. Because my mom was non-practicing, my dad never asked her to convert to Islam, which is typically what happens in those situations.

So, growing up, I was exposed primarily to Islam. And when I was a teenager, I became serious about exploring my father's faith. And so, I recited the Shahada, which is the declaration that Allah is the one true God and Muhammad is his one true prophet. I learned how to pray for my father and began to read English translations of the Quran. I wasn't reading it in Arabic like you're supposed to. And probably for a year, year and a half, I was very serious about this. And then a number of things just caused me to lose interest. You know, Islam is very works oriented. And so, praying and the things that you would do as part of the faith practice, to me, it was very repetitive, very onerous. It became burdensome.

And for a young guy, that's not really the best prescription. Plus, you know, I liked rock music, and sports, and girls. And so, I ended up really drifting away and became an agnostic when I went to college and took courses in biology. You know, I was hearing that the origin of life, the design of life, the history of life, could all be explained by evolution. And the professors I had, really were pretty negative towards religion. And so, I was very much influenced by that and settled into a position of agnosticism. I don't know that I would ever deny God's existence, but I wasn't really concerned if God existed or not.



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DAN:

Just wasn't relevant.

FUZ:

Yeah, it wasn't relevant to me. And I wanted to become a biochemist. And so, I did everything I could to prepare myself to go to grad school. And it was in grad school, really studying in-depth biochemical systems, that I became deeply impressed with their elegance and their sophistication, and began to ask the question, well, how do scientists explain where these incredible systems come from? This is the origin of life question. And so, this would have been the mid 80's. And even at that point in time, looking at the literature on the origin of life, I became convinced there was no way that chemistry and physics operating in an evolutionary context could somehow produce biochemical systems.

And so, that convinced me that there had to be a creator. And so, then the question was, who's that creator? And I was challenged by a pastor to read the Bible. I never had picked up The Bible other than looking at the Genesis 1 account out of curiosity as an undergraduate student, because I had a friend whose father was a Methodist minister. And so, we would read Genesis 1 and talk about it, and get into some kind of unusual conversations. So, the first time I read the Bible seriously was when I was a grad student about 23 years old. And it was the Gospel of Matthew that really opened my eyes to my sin and opened my eyes to the person of Christ. And that was instrumental in my conversion to Christianity.

DAN:

That's interesting to hear, coming from a materialistic background to all the sudden having the interest in a spiritual side or like our dualistic natures. Is there any one instance that stuck out to you and put that into your mind that that was a probability or possibility? Or was it just the general observation of complex systems?

FUZ:

Yeah, well, I can remember being just deeply enamored with the elegance and the sophistication of biochemical systems. And, you know, it was not uncommon when I would interact with other grad students for everyone to say, this is just unbelievably cool. This is amazing. So, everybody is responding in that same way, regardless of your worldview. But when I decided, look, I'm a grad student now. I want to know the nitty-gritty details of how chemical evolution produced life. So, I started reading, you know, when I had a little bit of time, on my own, different models that people were proposing and looking at the studies. And I can just remember that day, one day when I'm sitting at my lab bench reading. It's like, this can't work. You know, and it's like, the only way you could explain this if there was a creator. So, I can distinctly remember that point.

DAN:

Fantastic. Well, this is the first time I'll announce actually over a podcast. At CrossExamined, we're starting a podcast called 'The Master's Artist,' and it argues for the existence of God from

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the transcendence of beauty, and almost anything. And I've got to interview you on that podcast because it sounds to me like it's this transcendence of the complex nature of things that was just beautiful and wondrous, that actually drew you into this desire to learn more, and hence, you found the creator of the universe and Christianity. How did it come then from that to Christianity? Was it just biblical? Was it the influence of people?

FUZ:

Primarily, really, it was reading the Sermon on the Mount. My fiancée rededicated her life to Christ while we were a year apart. So, she was finishing up her undergraduate degree. I was in grad school. And so, she rededicated her life to Christ in that time that we were separated. Her mother invited her to go to a small, Pentecostal Church in downtown Charleston, West Virginia on Easter, and she really dedicated her life to Christ. So, she began to share with me. Her pastor was the one who challenged me to read the Bible. And one of his friends that was with him when we met and had a conversation, gave me a little booklet, a little tract on how to become a Christian. And I just kind of stuck it away.

And I went out and bought the cheapest Bible I could find at a bookstore and began reading through the Gospel of Matthew. And it was really the Sermon on the Mount where the person of Christ to me was so winsome, right? And He was teaching truths that I couldn't deny, were the right way to live an authentic life. But it's like, there's no way I can live up to this. So, Christ was very appealing to me, but also was strongly condemning me. And that's when I pulled out this little booklet and the Gospel was presented.

DAN:

It's so interesting. The late Dr. Tim Keller mentions that Sermon on the Mount, about how a college professor, as an assignment, gave each of the kids this assignment. You need to go read Sermon on the Mount, and then come back and we're going to discuss it. So, they went, and they read it. And she took a poll, a written poll. And she was reading them to a person. They all said, I hate it. And she goes, why? The comments were, because this is exactly how you want to be treated and how you want to live in a society like this. But none of us can do this. So, you're right. It is Christ presenting this picture of the wholeness and how people were designed trying to live by the creator and designed to interoperate in society. And yet, no one can do it. And He offers that, obviously, through His death, burial, and resurrection, as Christianity affirms. So, how did you then come to Reasons to Believe?

FUZ:

Well, I finished up my PhD, did a couple of post docs, took a job in R&D and industry. And, you know, I never saw a conflict between science and faith. But as I began to grow as a Christian, there were more and more questions I began to have about how does Genesis 1 really fit? I didn't see anything that was problematic in Genesis 1. But how does this all fit together? And it was through that process of really searching and grappling with, you know, the details of Genesis 1 in light of science, that I came across a book 'Creator and the Cosmos,' written by Hugh Ross. This is probably the first or the second edition. This is in the mid 90's.

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And I was just blown away with the integrity of how Hugh approached the science, but also the integrity with how he approached Scripture. And it was like the missing piece of the puzzle. And once I saw how he was thinking, and saw some of his insights, it was just like, the puzzle fit together perfectly. And it was really transformative. Because I was working in R&D, and every day I would encounter 40 or 50 PhD scientists. And so, I was not embarrassed by my faith, but I just never was outspoken about my faith.

But when I realized, wow, I actually have an opportunity here to not only defend the faith but make a positive case from science to other scientists, that Christianity makes sense. I began to talk about it. And one of the things that was funny, to me, or maybe sad at the same time, is that as I began to be vocal about my faith, suddenly, people that I had worked with for five or six years that I didn't know were Christians, they didn't know I was a Christian until I started speaking up, began to identify themselves as a Christian. And so, it was amazing how many closet Christians I was working with. But we started having Bible studies at work. One of my colleagues came to faith in Christ through that experience.

So, I realized the power of that. And, you know, that excitement really said to me, man, the most important thing I could be doing as a scientist is really communicating to people, that science is actually in support of the Christian faith. Anything I'm doing in R&D making products is fun. It's fun to work with some brilliant people that I was working with. But that all pales in comparison to actually showing people that connection between science and faith, with the idea that they then would ultimately be open to a relationship with God.

DAN:

That is such a neat dynamic. My personal, just a tidbit, I really came to faith at age 48, even after nine years of Christian middle school, high school, in the military, where I was very agnostic. But it was age 48 when I came to believe in Christ. And it was really understanding that I had been forgiven by accepting Christ after a life of, you know, I won't even go into it on the air. But it was not good. And the dynamic that you mentioned, of being able to share your faith finally, because it's real. You know, the relationship with Christ is real, every night, every day. You're right. There's people popping out of the woodwork everywhere. Well, I'm a Christian too.

And I wondered, oftentimes, you know, why didn't I know that? Why didn't you come out? Come on. You know, let's all grow up a little bit in Christ and do what we're supposed to be doing. Because as you said, yes. You're a scientist. But like Hugh says, you're an evangelist first. You are a Christian first. You're a Christian that does science, not a Christian Scientist. I'm a Christian that does business and a few other things. But it's neat that when you begin to share your faith boldly, how it's magnetic. It draws others to you that otherwise would not have come out. And so, I'm hopeful the Church learns this and really starts speaking up and becoming bold, especially the way society is headed. So, you join Reasons to Believe. How long have you been there?

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FUZ:

Oh, gosh. It's been almost 25 years. Twenty-four years I've been with Reasons to Believe. And you know, I got involved with them first as a volunteer and worked a few years. And I heard through some communication that they were looking to add scientists to the team. And I thought, well, I'm just going to throw my name in the hat. And, you know, God opened up doors.

DAN:

That's fantastic. So, were you a visiting scholar before?

FUZ:

At that time, I was a part of the volunteer apologetics community. I think that is what we were calling it in those days. And it's morphed over time. But yeah.

DAN:

So, tell me about the Visiting Scholar Program, which I think is quite unique. It's almost as if Reasons to Believe has fellows, senior fellows. That would be my analogy. Can you describe that?

FUZ:

Yeah. Well, one of the legacies that I think Hugh will ultimately leave, is not so much all the great books that he's written. And he's still cranking out books that are going to be incredibly impactful in people's lives. But it's really the people that he's inspired to follow in his footsteps. And it's not just people like me, or Jeff Zweerink who are on staff at RTB that he's inspired. He's inspired so many people. And I get to meet these people. Practically every day, someone will come up to me and tell me the impact that Hugh has had on their lives. And so, the idea is that, boy, could we marshal those people that are really in line with us at RTB and inspire them to begin to think of themselves as scholar evangelists, right? Where they're using their scholarship as a platform to share their faith.

And so, the idea is that, if we could build a scholar community, this really could be the future of Reasons to Believe, beyond Hugh's lifetime, beyond my lifetime, where Reasons to Believe really becomes this organization of scholars, not only in the sciences, but medicine, engineering, in the humanities, in theology, philosophy, biblical studies. The list goes on, that see themselves as evangelists who are scholars. And we're currently at 200 people who are volunteering with us, who we are investing in, we're training, we're encouraging. But they in turn are now starting to create resources for us. They're starting to take a lead in certain project areas that we don't have the expertise.

DAN:

Are these like, postdoctoral professors and things? Do they come from major research institutions?

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FUZ:

Yes. I mean, it's all over the place. There are people that are in the academy. Some of the people that are top notch world class scientists who are Christians, it's humbling that they are even interested in what we're doing. There are people that are working in industry, people that are medical professionals, men and women that are just highly accomplished academically, and also professionally. We're looking for people with terminal degrees for this particular community. There's another community we have where people can be a part of the team, who aren't at the highest level of their discipline. And those are very important people to us as well, as part of the community.

And we also are encouraging young people who are working on their PhD, or in medical school, to join the community as associates. Now people in the community can begin to mentor them, and encourage them, and give them role models for how they can be Christians in science or Christians in medicine. So, it's really exciting, you know, to see where the community is going. I don't know if I mentioned this, but we're over 200 people. And the vision is within the next 10 years, to be at 1000 people. And can you imagine if there's 1000 people who saw themselves as scholar evangelists. And we're trying to recruit people all over the world. And they're out speaking on university campuses, speaking at churches. Even if they are speaking at a handful of universities and a handful of churches every year, the reach is enormous.

DAN:

Absolutely. That's fantastic. Because that's really where the degradation started, you know, after the post enlightenment, was in the academia. And to take it back at the level that RTB is going at it is just fantastic. I think that's the exact right thing, right direction that you're headed. I'd like to shift just for a second. Now, I've taken, even as recently as this past year, I like to stay up to date on many of the things like the origin of life, and specifically as well, theistic evolution, or I believe they like to call it evolutionary creationism, such as espoused by BioLogos, with Collins, and Venema, and the others there. Part of the courses, which I encourage everybody to take. They're just phenomenal courses to understand the complex life forms and how it comes about through the creative work of our God. There was a discussion in this book, and I don't remember the name of the book. What is it?

FUZ:

I think it's 'Old Earth or Evolutionary Creation?'

DAN:

Right. And so, it was a very respectful conversation between scientists from both organizations, RTB and BioLogos. Correct me if I'm wrong, but it seemed towards the end of the book, that there was one hill to die on that BioLogos tried to drive their stake into and it was on genetic scarring, I believe. Could you frame that argument? Because I have seen it since then, with others, you know, with kind of a folded arm, and smug look. Well, genetic scarring proves theistic evolution. Could you frame that and RTB's response? Knowing that in science we're always discovering new things. But what does the current argument look like?

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FUZ:

Yeah, well, the idea behind that argument is that when we look at the human genome, there are a number of sequences, a significant proportion of sequences in the genome, that seem to be non-functional, that look like they're junk DNA. That's a term that's sometimes used for those sequences. And the idea is that these were sequences that were one time functional, but then underwent some kind of mutational change or degradation, so that they're still retained in the genome as these non-functional sequences. But they have, you know, they presumably reflect some kind of evolutionary history. And these same sequences are found, for example, in the genomes of the great apes, chimpanzees, orangutans, and gorillas. And they are similar sequences, or even identical in some cases, and they are in corresponding regions of the genome.

So, the question would be, well, why would God create genomes where there's junk in it, and that junk corresponds to junk in the genomes of other creatures? So, the reason it's called genetic scarring is because these sequences are once functional, and now they're damaged. So, they say these are genetic scars that are left over from an evolutionary history. And so, it is a compelling argument, with the idea being that these mutational events must have happened in the ancestral group that gave rise to, let's say, humans and chimps as separate evolutionary lineages. And our response to that would be, well, you're assuming that these sequences are non-functional. You're assuming that there's not a reason for them.

And so, the example that I gave in the book in response to this genetic scarring is that just because you see a scar doesn't mean it doesn't have a purpose. So, for example, you know, I'm trying to remember what I said. But let's imagine that I belonged to some kind of secret club. And the way in which we show membership in the club, is that we all cut our finger in a particular spot and produce some kind of permanent scar. And so, that permanent scar has a purpose, though we may not know what that is, necessarily. So, just because you see scarring and it's shared doesn't mean there's not a purpose.

DAN:

Hasn't there been a lot of this, what was originally called junk DNA by I believe, Francis Collins? Hasn't there been discoveries that this junk DNA actually does have a function and epigenetics, for instance, does have a function, whereas it was thought not to? So, as you say, just because we don't know, and I'm not calling it a God of the Gaps thing. But just because we don't yet know everything fully, we're learning daily about things in the genome, and epigenetics especially. Is that true?

FUZ:

Yes, it is. And I can remember when I started at Reasons to Believe, one of the first articles I wrote for the ministry was about junk DNA. And I made the point, this would have been in 2000, that I predict that we will discover function for the different classes of junk DNA. There's not a single class. There's multiple classes. And over the last 25 years, we have literally discovered

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function for every class of junk DNA. In the early 2000's, a project was initiated called the Encode Project. It's one thing to have the sequence of the human genome. It's another thing to be able to make sense of it. And so, the Encode Project was designed to try to catalogue all the different types of functional sequences in the human genome. You could kind of think of it as trying to discover the Rosetta Stone for the human genome.

And in 2007, they published a preliminary result, which was sampling 1% of the genome. And they were shocked to discover how much function, and they were seeing function in junk DNA. In 2012, they published phase two, where they're saying, it looks like 80% of the human genome is functional. That number is probably closer to 100% once we finish cataloging things. And so, that study seems to identify a whole range of function for junk DNA. And since that time, people have independently of the Encode Project, have generated understanding of, for example, pseudo genes.

These are genes that were one time functional, but then underwent mutation according to the evolutionary model. And that broke those genes, and they're shared in humans and chimps, for example. Well, we now know why pseudo genes are in the genome. They're playing a regulatory role. And their role is critically dependent on the fact that they have gene like structures. The only way they can function in a regulatory role is because they have a gene like structure. So, if I was trying to design a sequence to perform the regulatory functions of pseudo genes, I would design them exactly that way. Or another class of junk DNA that gets a lot of attention are called endogenous retroviruses. These are supposedly sequences that come from a retroviral infection, and over time they become disabled.

And it turns out that these are actually functioning as an antiviral defense system. And again, if I was going to design an antiviral defense system, it would look exactly like endogenous retroviruses look. So, you know, on our website, Reasons.org, I've got a blog called 'The Cell's Design.' And I frequently will write articles about the latest discoveries that are happening in science, and many of them are focused on new insights into junk DNA. But it's interesting, Dan, because as I'm reading the scientific literature now, the way people engage so-called junk DNA is very different.

You know, 25 years ago, nobody even wanted to study it. Why spend valuable research dollars studying sequences that are junk? And now, people are seeing these sequences and they're saying, the fact that these are sequences that are shared, the biochemist would say conserved from organism to organism, means they must be functional.

DAN:

It gives common design a different term or a different meaning. It's common design because just like Henry Ford put four tires on the first car, Elon Musk is putting four tires on. Oh, well. It can't be it. No, why do they still have four tires? Because this is a great design. So, a common design from a common designer, it would make sense.

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FUZ:

Yeah. But it's interesting, because research scientists are now not dismissing it as junk but are asking the question. Well, what function is it performing? So, there's a complete change of perspective? Yeah.

DAN:

And yet, evolutionary creationism still holds to it just being scar tissue.

FUZ:

Yeah. Or they will see the shared similarities, again, as reflecting common ancestry. Well, you know, one of the challenges with the common design argument is that it implies design and purpose. And because of Darwin's influence, 'The Origin of Species' was really his attempt to remove teleology from biology. That's the Darwinian revolution, where he was looking to replace the mind of a creator with a mechanism of evolution. And so, biology is strongly anti-teleological. And so, if you are embracing evolution as a means by which God creates, you are, in a sense, adopting what most biologists would say is an anti-teleological mechanism, right? And so, in that framework, you can't really posit a common design interpretation. Not because it's an invalid interpretation, because the rules of science don't allow it.

It's, you know, this is the influence of methodological naturalism coupled with this deeply anti-teleological view of biology. Which to me, I think, really is sad, because it's such an impoverished view of biological systems, where your first inclination is that things are non-functional, or they don't really serve an ultimate purpose, or it's junk. Versus seeing these systems as elegant designs. And maybe we don't understand what the purpose is, but we're motivated to seek that purpose. And that particular approach is incredibly fruitful. The history bears that out.

DAN:

What's interesting to me, in the realm that I operate in, in business and engineering, the single largest area of engineering seeing the most explosive growth is in bioengineering. Observation of the complexity, and just the beautiful interaction of the things even on the micro scale in biology, that engineers are going, wow. I had no idea. That is a phenomenal idea. In fact, we could use that for, you name it, x. And, you know, there's so many things that we're learning as humans, even in the very creative and ingenious realm of engineering, and physics, that we only see in tiny, microorganisms, and how they operate, and how they use energy, and how they function together in such an incredibly intricate manner.

For me, it drives a wonder and an awe in the Creator that I didn't possess before as well. So, what is lately, if you will, in the last year, other than congratulations? You took over Reasons to Believe in running it and operating it, which must be a megalithic task for you, and only because you're a scholar. You have to be pulling your hair out. I don't have much. You still do, but you won't in a year, trying to pull your hair out in managing this wonderful organization, and doing

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the research that you've been doing your whole life, and that you love to do. How do you balance that?

FUZ:

Well, it's a challenge. But I'm learning and I've got great people around me that are helping to support that work. But, you know, my first love is the scholarship. But, you know, it's also exciting too, to have leadership responsibilities, and to be able to cast the vision for the organization that I think is a very exciting vision. And to realize that, boy, if we could pull this off, the number of lives that can be transformed for the Gospel is beyond, you know, our capacity to even imagine. That's exciting to me, you know? And it's fun. I think it is fun to see men and women who are just consummate in terms of their scholarship, who are also consummate in terms of their Christian character, but they just don't quite know how to get involved in ministry in a way that really leverages their scholarships.

So, to come alongside those people, and really encourage them, and to open up opportunities for them just through the platform that God has given us at Reasons to Believe, but also through our experience, and again, through our words of encouragement, you know, that's exciting to be able to replicate yourself of sorts. And a lot of times, God may use these people in an even more powerful way than He would ever have used me. But my role is to really help that person to be the best that God wants them to be.

DAN:

Exactly. It again strikes me how difficult it must be that you are contending or struggling against the outside influence of the skeptic, the agnostic, the atheist, and you're contending for the faith against that and bringing rational proof, and evidences, and inferences to that. But you also have to struggle sometimes against those inside the Christian Church, especially the theologians who would see certain things in science and not understand it fully. And before trying to understand it fully, will make an accommodation that Scripture is not inerrant.

So, that's got to be a tough balance between the two, and yet you're pulling it off. And I made a plug before for Hugh's book, which hasn't come out yet on 'Rescuing Inerrancy.' Having read it, it is an absolutely critical work, I think, for the Christians who would be in science, and the theologians who would be in the business of Scripture to really consider and work together. And you guys have pulled it off wonderfully.

FUZ:

Well, you know, when the idea for that book came up a few years ago, almost everybody on staff really encouraged Hugh that this could be one of the most important books that you've ever written. And he's written a lot of important books, you know, for the very reasons that you're outlining, Dan. And if people, not to shameless plug here, but you know, if people want to get a copy of that book, we are giving it away with a donation to Reasons to Believe from the fall through the end of the calendar year. And then it will be available for sale in January. So, people

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can either wait until January to buy a copy, or they can donate any amount and they'll get a copy of the book.

DAN:

And that's Reasons.org. Great. Well, thanks for joining us.

FUZ:

My pleasure.

DAN:

I always feel an honor, being able to interview yourself, and Hugh, and those associated with Reasons to Believe. I'm your biggest fan, and it's interesting. We're going to get to serve each other and our King together within anywhere between one day and 40 years. I'm just really excited about that. Thank you for joining us. We'll wrap it up again. Ladies and gentlemen, Dr. Fuz Rana, leader of Reasons to Believe. Thanks.

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