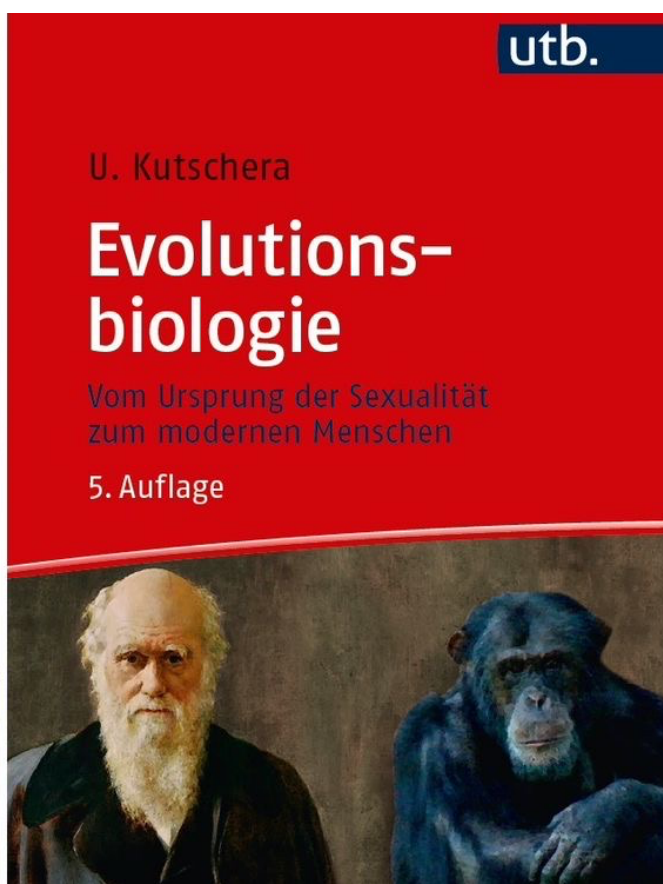


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## Music is the Food of Love and Sex: Ulrich Kutschera Explains the Evolutionary Basis of Success.

Ulrich Kutschera is a Professor of Biology, Author, and Musician: the “Piano-Synth-Evolutionist” Reveals Secrets Everybody Should Know.

*An Exclusive Interview with Ulrich Kutschera by Trey Alston and Jacob Moore, 11 June 2025.*



Ulrich Kutschera was born on February 2, 1955, in Freiburg im Breisgau, a city nestled near Germany’s Black Forest. It’s a landscape rich with rivers, wooded trails, and flora—a place that breathes nature, perhaps foreshadowing the dual passions that would define his life: biology and music.

His father, Alfred Kutschera (1928–2004), was a celebrated visual artist and photographer, known widely for designing the iconic “**Stonewall-Cover**” for *The Rolling Stones – Big Hits* album in 1973. This artistic lineage blended into the household environment; art was a constant presence, though music was the more intimate language of the home.

"My mother was a hobby pianist," Ulrich recalls. "I remember being about six years old when she would play the piano inherited from her aunt. I was mesmerized."

That piano would become young Ulrich's gateway into the world of sound. Though his first lessons were from his mother, by the age of nine, he was training with a professional instructor. But even as he studied classical music and played the pieces of Bach and Mozart, Ulrich couldn't help but deviate—improvising, embellishing, composing his own melodic ideas that twisted and danced around the old masters' notes.

Music stirred one part of him. Nature stirred another. Family trips to the Black Forest offered more than simple leisure. "I studied nature. I caught beetles. I observed animals. That's where my interest in biology began."

As a child, his friends dubbed him "Snake-Uli," a nickname he embraced. His fascination with the natural world was more than a phase—it was a calling.

Kutschera pursued biology, chemistry, and music at the University of Freiburg. By 1985, he had earned his Ph.D. in evolutionary biology and physiology. Soon after, he embarked on a research path that would take him across the Atlantic to Stanford University in California—first as a postdoctoral researcher, then as a visiting scientist.

Kutschera's contributions stretch from taxonomy to molecular genetics. He has studied everything from hormonal signaling in plants to DNA sequencing for phylogenetic reconstruction. And throughout it all, he has remained deeply involved in the global scientific community, chairing the "Arbeitskreis Evolutionsbiologie" (Association of German Evolutionary Biologists).

His recently updated textbook, **"Evolutionary Biology: From the Origin of Sexuality to Modern Humans" (5th Edition, 2025)**, includes a newly expanded theory of macroevolution—the **SyNaDE model**, which integrates sexual reproduction, natural selection, and developmental constraints.

Yet for all his scientific achievement—over **350 peer-reviewed papers**, numerous books, and academic honors—Kutschera's heart beats to the rhythm of something more primal, more human: music.

By day, Kutschera is a researcher. By night, he transforms into the **"Piano-Synth-Evolutionist."**

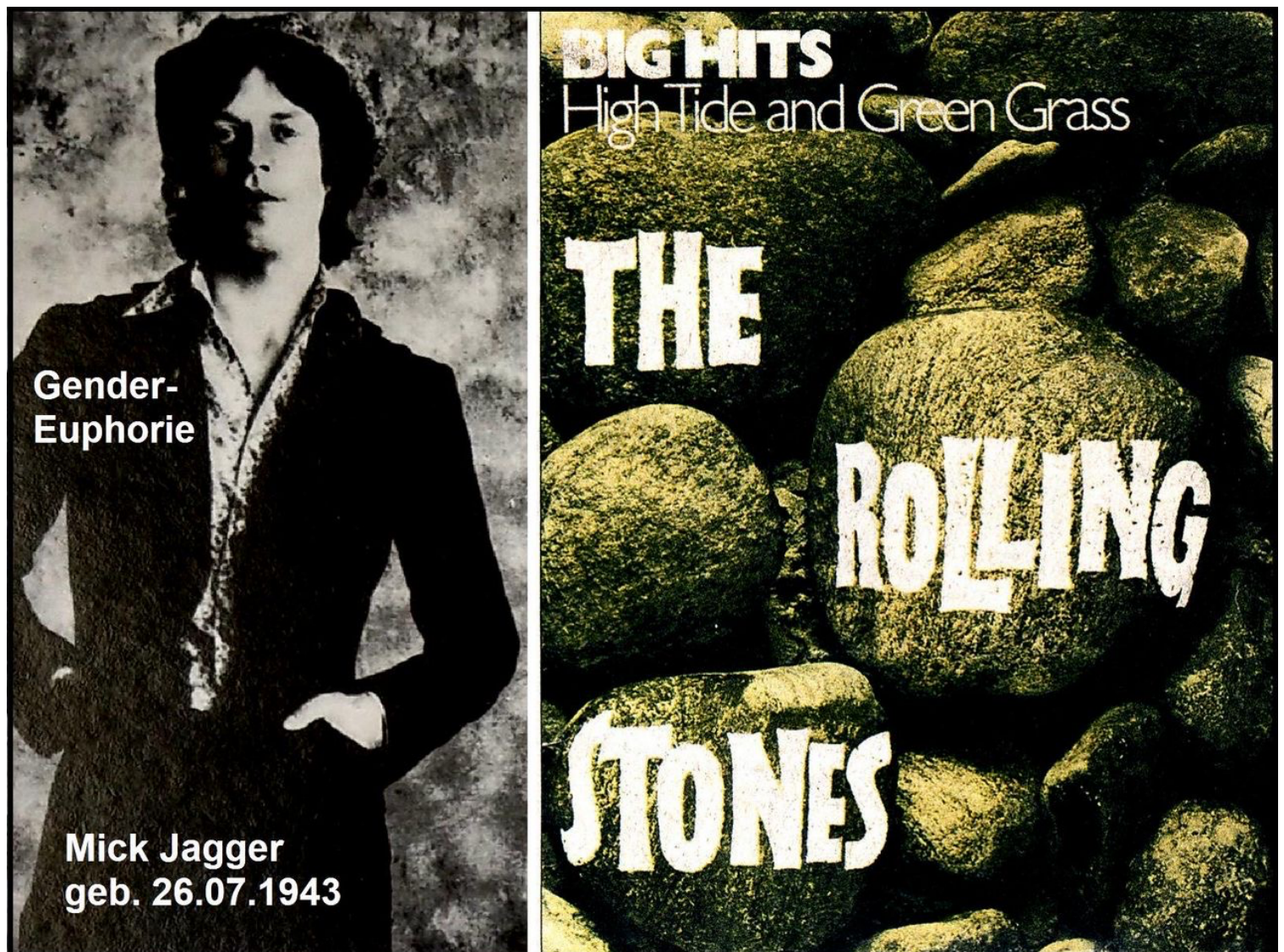


"I cannot live without music," he says. "It is my vital force."

*In this exclusive interview, Ulrich Kutschera, a renowned evolutionary biologist and progressive rock composer, speaks with journalist Trey Alston about his lifelong relationship with music, the biology behind melody, and how sound and science shape our world.*

**TREY ALSTON:** Let's start from the beginning-- can you please tell us your full name, where you were born, and a bit about your upbringing?

**ULRICH KUTSCHERA:** My name is Ulrich Kutschera, I was born on Febr. 2, 1955 in Freiburg i.Br., Germany. My father is the visual artist /photographer Alfred Kutschera (1928–2004), best known for his design of the famous "Stonewall-Cover" of the LP- Compilation Album "The Rolling Stones-Big Hits-1973"



After World War II, my father was forced to leave his home country Czechoslovakia, to find a new place in Southern Germany, where the "poor refugee" met my mother, Esther Kutschera (1929–2016), in Freiburg ca. 1953. I was raised with two younger sisters under difficult economic conditions We lived in a small, rented apartment owned by the Book Company where my father was employed (Herder-Verlag).

**TREY ALSTON: What were some of your earliest memories tied to music or science while growing up?**

ULRICH KUTSCHERA: I remember that, when I was ca. 6 years old, my mother played the piano, an old instrument she had inherited from an aunt. As a child, I enjoyed her performances. This experience motivated me to learn to play piano. Accordingly, my mother gave me the first piano-lessons, but when I was 9 years old, a professional teacher was hired. I learned to play classical music, Bach, Mozart, Clementi etc. However, to the chagrin of my teacher, I often improvised, playing my own tunes around the "perfect melodies" created by the great composers of the past. At this time, I started to study nature, catching beetles etc. – notably during our family-excursions to the near-by Black Forest, where we lived.

**TREY ALSTON: Did you come from a professional musical or academic family, or did your interests evolve independently?**

ULRICH KUTSCHERA: My mother was only a "hobby-pianist" – no professional musician, and my father (the visual "Stonewall-Cover"-artist) wondered how one can play different tunes with the left and right hand at the same time. He tried many times, but never succeeded, to play the piano. However, my father loved to listen to classical music, Mozart, Beethoven, etc.– with a special attachment to the music of the Czech composer Bedrich Smetana (1824–1884); the Symphonic Poem "The Moldau" was his favorite "Song". Due to this childhood-experience, I recently re-composed this great music to create-release a "Rocky Moldau" on Streaming Platforms.— My inner drive to become a biologist and author, by catching-cultivating newts, frogs, lizards, snakes etc., and writing down my observations, evolved independently during youth. As a result, my friends called me the "Snake-Uli", a nickname I enjoyed. Accordingly, I studied biology-chemistry and music at Freiburg University, earned my MS-PhD in evolutionary biology-physiology, and started my independent career in 1985. As an elected member of the Alexander von Humboldt-Stiftung, I moved, as Postdoc, to Stanford University, California, USA.

**TREY ALSTON: Where are you currently based, and what does a typical day look like for you?**

ULRICH KUTSCHERA: After many years as a visiting scientist/professor in the USA (Stanford-Palo Alto/California), and at German Universities, I currently live in Freiburg, Germany. In my office, where the "Arbeitskreis (AK) Evolutionsbiologie" (Association of German Evolutionary Biologists, I am the chairman) is localized, the Piano is of great importance for me. I get up early in the morning, exercise to boost

my health, do my work as Stanford-associated scientist and author of research papers/books. However, during the evening hours, I play the piano and compose my own music. Without music, my life would be poor – it acts as my “vital force” – I love it to improvise at the keyboard instrument. Without music, it would not have been possible for me, over the past four decades, to publish 350 scientific papers and 18 books, dealing with evolution, sex, gender etc.!

**TREY ALSTON: Are you more immersed in your scientific work right now or your music career, or do you manage to balance both?**

ULRICH KUTSCHERA: My primary occupation has always been science and writing. However, as an evolutionary biologist/physiologist, and father of five children, I know that music is important for body and soul. It is strange – whenever I make a brake, or exercise-relax in my spare time, music creeps into my mind. I have stored hundreds of classical compositions, Bach-Mozart-Tschaikowsky etc. in my brain, and can “listen” to them, without physically “listening” to a recording of live performance. Because of this “infection” of my brain with music, and the desire and joy to play-improvise-compose at the piano, both science & music determine my way of thinking and working. This may sound strange, but I cannot change it.

**TREY ALSTON: You’ve had a distinguished career in biology. What specific fields or questions have you focused on in your research?**

ULRICH KUTSCHERA: After earning my PhD, I moved to Stanford University-CA-USA (lab research). In addition, in the ponds and streams of San Francisco Bay Area, I collected leeches and other small hermaphrodites to cultivate-study these little animals in aquaria. In continuation of my earlier “Freiburg-Germany”-work, the sexual behavior of hermaphrodites, i.e. social amoebae ( bacteria-eating myxomycetes), leeches (hirudineans) and planarians (flatworms), my “slimy friends”, fascinate me, as a “hot topic”. However, modern research in evolutionary biology is based on molecular genetics, so that DNA-sequencing and reconstruction of “phylogenies” became, and still is, my daily work. In addition, plant physiology, with a focus on hormone research in the “green world”, and photosynthesis, became another topic. To sum up: the evolution and physiology (i.e., function) of bacteria, amoeba, animals (inclusive of humans), and plants, with a focus on sexual cycles, are of great interest to me.

**TREY ALSTON: Have there been any major scientific discoveries or milestones that stand out in your career so far?**

ULRICH KUTSCHERA: I have discovered-described 12 new species (bacteria,

myxomycetes, leeches), notably from the USA—such as "The Golden Gate Leech *Helobdella californica* Kutschera 1988, the San Francisco Bay Area leech, *Helobdella farmeri* Kutschera 2023" etc. With colleagues, I have elucidated the sexual cycles of numerous organisms, so that we have just published a theory on the evolution of sexuality. As a plant physiologist, I have discovered-described how certain hormones act in the regulation of cell growth, and my contributions to metabolic scaling in animals and plants are also highly-cited by colleagues around the world. Most importantly, a few weeks ago, I have published an updated version of my Darwin-based evolutionary theory (The expanded SyNaDE-model of macroevolution). This version of our modern theory of biological evolution is also described in detail in the 5th Edition-2025 of my textbook "Evolutionary Biology. From the Origin of Sexuality to modern Humans" (in German).

**TREY ALSTON: In what ways has your scientific work changed or evolved over the years?**

ULRICH KUTSCHERA: My scientific projects are, in part, based on Charles Darwin's (1809–1882) work in evolutionary biology and plant physiology. They evolved from "classical" to "molecular" studies. Over the past years, my interest also focused on Darwin's theory on the origin of music during human evolution. In his 1871-book "The Descent of Man, and Selection in Relation to Sex", he essentially proposed that music is the product of, and originated with, male-female courtship behavior. In short— music is the "food of love and sexual reproduction (sex)". This is an attractive Darwinian idea that I fully support, and will further explore.

**TREY ALSTON: You've produced six albums and 9 EPs in Progressive Rock— what drew you to that genre in particular?**

ULRICH KUTSCHERA: When I was 18 years old, and later as a biology-chemistry-music student, I took advanced piano lessons. During this time, I not only played – and improvised over – the music of my heroes of the past (Bach, Mozart, Beethoven etc.). It was the time (early 1970s) when bands like Emerson, Lake & Palmer, Genesis etc. became famous. I was impressed by their mixture of Rock and classical elements, and accordingly, composed-recorded-released (with a friend) my first LP: "Hirudo- The First Incarnation-1983". Our Album received several excellent reviews and sold well, notably in the USA, where the LP was distributed via Eurock (Archie Patterson). In 2017, I have released a re-mastered/improved CD-version of this Opus-1, which is, like the other 5 Albums, distributed via Compact Disc Services-UK. In addition, Streaming services (Spotify, Amazon Music, YouTube Music etc.) have released my music, which has also been labelled as "Neo Classical ProgRock" (see Radio Wigwam with reviews of my music, and links). The



EPs (Singles) are, in part, based on material from the Albums – shortened-modified versions of the longer original tracks.

**TREY ALSTON: How do you approach songwriting? Is there a philosophical or scientific narrative that threads through your music?**

ULRICH KUTSCHERA: My mode of composing is based on Darwin’s principle of “Descent with modification by means of natural selection”. Accordingly, the “survival of the fittest” melodies takes place and many other “creations” are rejected, i.e. they die. In other words: I select those piano improvisations and develop them into final compositions (songs) that best “fit” to my taste as a Neoclassical musician. Usually, it takes me several weeks until a track is ready for recording. Subsequently, my excellent producer, Roman Beilharz, works very hard with me to yield a professional final track. However, sometimes melodies emerge in my brain when I am outside, in nature; then, I have to go to the piano and play-write down this ideas – otherwise they may disappear.

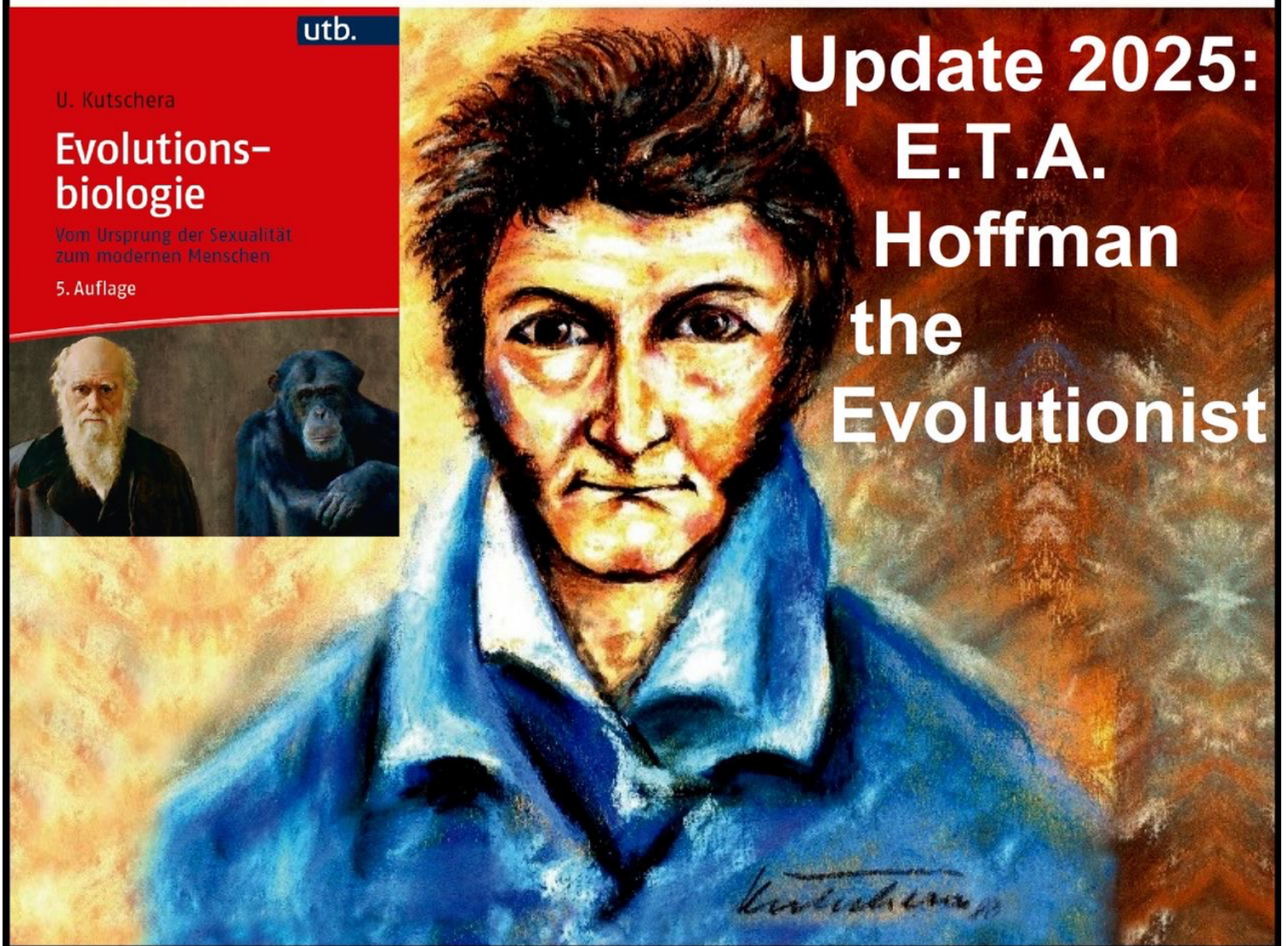
**TREY ALSTON: Can you share the story behind one of your favorite tracks you have created?**

ULRICH KUTSCHERA: I have composed-recorded more than 50 tracks (piano-based songs, symphonic Synth-pieces etc.), and many more are in the making. However, my Album No. 5 – “Requiem for E.T.A. Hoffmann- 2022” is, in my opinion, my best work so far. The German writer, composer, musician, painter and jurist Ernst Theodor Amadeus Hoffmann (1776–1822), best known as the author of the 1816-novel “The Devil’s Elixier’s, composed 85 works, among them church music. His “Miserere” of 1809 impressed me to such an extent that I re-composed some of his melodies in more modern versions. As a result, and in accordance with the “Darwinian” principle of composing music, 10 tracks emerged that fit together as a “Grand Suite for Piano and Synthetic Orchestra”, see [Link to the Updated YouTube –video-2025:](#)

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# ***Ulrich Kutschera***

## **Requiem for E.T.A. Hoffman**



In addition, Hoffmann was also an evolutionist. As described in my recent book "Evolutionary Biology", the atheist Hoffmann ironically stated that "God created only imperfect organisms" – a truism corroborated many times over the past 200 years, and explored by me, and others, under the motto "Design-errors in nature"!

**TREY ALSTON:** Do your two worlds ever collide? Have you ever written music inspired by biological concepts or nature?

**ULRICH KUTSCHERA:** No collusion! My two creative activities, biological research and composing-recording music, are based on similar principles. As a scientist, I need inspiration to develop new research projects, which often emerge spontaneously. As a composer, most melodies come into my mind without, or even against, my will. After this first phase of Inspiration, "Perspiration" follows – the hard mental work of refining-performing-modifying-writing down the "creation" in order to produce an optimal result (recorded song, scientific paper). Writing books is more boring, because the compilation of many known facts is "not much fun".



**TREY ALSTON: What do you think music can express that science cannot and vice versa?**

ULRICH KUTSCHERA: Music is a universal human activity, across all cultures, races and ages. As Darwin in 1871 wrote, it is a core part of our emotional and spiritual life. This central human experience differs from scientific work, which is based on rational thought and logical deduction. Music may be the “food of love and sex”, but without scientific progress our life would not be as pleasant as it is – think of enough food, good health, and modern technology!

**TREY ALSTON: Would you ever consider producing an album or live show specifically themed around science education?**

ULRICH KUTSCHERA: I am only a humble studio musician, too busy with research/ writing for finding time for live performances. An Album, based on Science Education, would be a true challenge – Thanks for this valuable Idea!

**TREY ALSTON: You said you have also written for music news and editorial publications. What kind of stories or topics are you drawn to as a writer?**

ULRICH KUTSCHERA: I have published articles on evolutionary psychology, dealing with the dangers of Social Media-addiction etc. Recently, I wrote an article for Music News entitled: “Mick Jagger–The Beethoven of Rock Music” Since my father designed the famous “Stonewall-Cover-1973”, and the 81-year-old Jagger is, since 1964, the unique front man of the legendary “Rolling Stones”, I admire this Super-Star! In addition, he deserves recognition in Darwinian Fitness-terms – see his “reproductive achievement” of 8 wonderful children!

**TREY ALSTON: Looking back, is there a moment where you felt your science and music truly converged?**

ULRICH KUTSCHERA: Yes! Several times in my life, when I was collecting samples in the field (leeches, planarians) for my experimental work on sexual behavior and evolution of hermaphrodites I was thinking of “nothing specific”. Suddenly, a new melody emerged in my brain. I “stored” the music mentally, developed it according to Darwin’s principle while looking for animals and collecting suitable specimens. Finally, at home, I first placed my samples into an aquarium, briefly observing my little “slimy creatures”. Then, I went to the piano, and a new song was born!

**TREY ALSTON: What impact do you hope your work both in labs and in studios has on the world?**

**ULRICH KUTSCHERA:** Being a “poor man’s child”, I am pleased that my work as scientist, author of books and composer of piano-based neoclassical ProgRock-music is acknowledged. However, the era, when single men, like Darwin, Beethoven or E.T.A. Hoffmann were able to “change the world” by publication of one unique work (via the Origin of Species, 1859; the fifth Symphony, 1808; or the Devil’s Elixiers, 1816) is over. Today, thousands of scientific papers, books, and songs are released per week. Nevertheless, some original achievements become famous – unfortunately, often not the best ones!

**TREY ALSTON:** Are there any upcoming projects, publications or albums you are currently working on?

**ULRICH KUTSCHERA:** Yes, Indeed! As an evolutionary biologist, I am working on the elucidation of the sexual behavior and mode of reproduction in cultures of invasive tropical land planarians, a project carried out with my scientific collaborator Ingo Ehnes. As an author, a sequel to my major textbook “Evolutionary Biology-5th Ed. 2025” is in preparation. As musician-composer, I am just about to record my EP (Single) No. 10, and Album No.7-2025. I use the unique voice of Mick Jagger (spoken words), combined with my Beethoven-inspired piano-music, to create a kind of “Jagger-Beethoven-Rap” – an interesting mix! I am confident that this novel “ProgRock-Piano-Rap” – a new Genre! – will please listeners who admire Mick Jagger and “rhythmic-Rappy” neoclassical music alike.

**TREY ALSTON:** Finally, if you could leave a positive message to aspiring scientists, artists, or both– what would it be?

**ULRICH KUTSCHERA:** In a recent article in Music News, entitled: “Creativity and Authenticity are the Keys to Success”, my recommendation was: “Do what you like, like what you do, and work hard”. Because of the harsh competition in all fields of creativity, I would like to add the following advice: “Never give up, pursue your goals – you are a unique product of biological evolution”, and remember – “no created (i.e. evolved) organism is perfect” (E.T.A. Hoffmann’s allegory of 1822).

Ulrich Kutschera’s unique blend of science, music, and philosophy offers a rare perspective on human creativity and evolutionary success. His insights bridge disciplines in a way that inspires curiosity and reflection—whether you’re a biologist, music lover, or simply intrigued by the complexity of life.

Explore more of his fascinating world and musical vision by checking out his brilliant works through the links below.

Music Link: <https://open.spotify.com/artist/7IR5ICZT9KJdwn46wtfeqO>

Spotify: <https://open.spotify.com/playlist/59SsNQa9lwb9QtI1VbFONE>

YouTube: <https://www.youtube.com/watch?v=Py0CGyxx5qE>

Amazon: [Amazon.com](https://www.amazon.com)<https://www.amazon.com>Ulrich Kutschera: books, biography, latest update

Twitter(X): [https://x.com/kutschera\\_u?s=21](https://x.com/kutschera_u?s=21)

Webpage: <http://www.evolutionsbiologen.de>

Email: [kutscherau@gmail.com](mailto:kutscherau@gmail.com)