

## Astrobiology News September 2020: The Astrobiology Graphic Novel Series

Is your family looking for educational reading material that's both fun and informative? Do your kids, grandkids, or you, like graphic novels? I recently came across yet-another creative NASA resource -- this one shares the story of the human search for life in the Universe via a graphic novel series that highlights the efforts of real scientists working in this multidisciplinary field.<sup>1</sup> In a short video clip, NASA scientist and graphic artist Aaron Gronstal takes viewers on an inside journey of how he is making astrobiology widely accessible through pen-on-paper artwork and computer digitalization that convey content through pictures and text.

Kids (and the young-at-heart) may enjoy learning about Mars expeditions through the eyes of a fictional robot reminiscent of WALL-E, while others may enjoy tracing the roots of astrobiology back to cave paintings! Other installments chronicle NASA missions that investigate the potential for life elsewhere in the Solar System and beyond, and relate how studying life in extreme environments on Earth informs our search for life elsewhere. The most recent issue explores prebiotic chemistry and questions relating to the origin of life on Earth.

I can imagine families reading these issues together and having fascinating discussions. The scientists whose work is highlighted are ethnically diverse, and may inspire parents to explore the careers of these scientists further with their children. Since we're on the subject of children, another great resource to check out is *Frontiers for Young Minds*,<sup>2</sup> an open-access scientific journal where articles are written by scientists and reviewed by a board of kids and teens. A colleague and I wrote the very first Astronomy and Space Science article for this journal five years ago,<sup>3</sup> but there are now many from which to choose!

These are all wonderful resources to stimulate interest in STEAM (Science - Technology - Engineering - Arts - Mathematics) topics, and since we learn best by actually doing, I also encourage parents and children to check out the [research projects](#)<sup>4</sup> on the Zooniverse citizen-science platform, where you can participate in exciting science across diverse fields of study. If you do use this platform, either individually, as a family, or as part of a group or class project, I humbly ask that you take a few minutes to fill out a [pre-participation](#)<sup>5</sup> or [post-participation](#)<sup>6</sup> survey that will help us improve the Zooniverse experience for everyone. If you'd like to learn more about Zooniverse and how citizen science invites everyone "into the scientist's land," please consider registering for my webinar to the Institute on Religion in an Age of Science (IRAS) on September 17th - it's free!<sup>7</sup> If you can't make it in real-time, no worries - the presentation will be archived on the IRAS website.

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<sup>1</sup> <https://astrobiology.nasa.gov/resources/graphic-histories/>

<sup>2</sup> <https://kids.frontiersin.org/>

<sup>3</sup> <https://kids.frontiersin.org/article/10.3389/frym.2015.00016>

<sup>4</sup> [https://www.zooniverse.org/projects?utm\\_source=newsletter@utm\\_campaign=projects-CLP](https://www.zooniverse.org/projects?utm_source=newsletter@utm_campaign=projects-CLP)

<sup>5</sup> Pre-survey: <https://forms.gle/x5TezWJEqAZnLb39A>

<sup>6</sup> Post- survey: <https://forms.gle/opYzTKSxK3PFJtv9A>

<sup>7</sup> <https://www.iras.org/>

Until next month,

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