

## **Conversation between Novim (Michael Ditmore, Executive Director), GiveWell (Holden Karnofsky, Alexander Berger) and Good Ventures (Cari Tuna) - July 2012**

*These notes reflect answers that Michael Ditmore gave during our conversation.*

### Mission and structure:

Novim was formed in the spring of 2008 with the goal of convening researchers to objectively study topics that need more attention for the greater good of humanity. The organization has a focus on controversial topics where there's a lack of objectivity in common discourse. The organization draws inspiration from two groups:

- University of California at Santa Barbara's Kavli Institute of Theoretical Physics, an organization which focuses on areas of physics that need breakthrough attention, hosts conferences to facilitate thinking about them, and shares results widely with the scientific community.
- JASON, a group of approximately 50 physicists commissioned by the federal government to offer advice on critical topics. The researchers are objective in the sense that they're outsiders without vested interests connected with the federal government or Department of Defense.

Novim does not recruit scientists who have taken a public stand on the issue under investigation to work on a project. However, it does seek input from people who have taken such a stand on both sides of the issue.

Novim aims to provide information that people can use for rational decision-making. The organization strives for transparency and has released the full details of the methodology, algorithms and data used for a global temperature study that it recently completed.

### Projects:

Novim has undertaken four projects to date:

- Methodology and issues relating to geoengineering of the atmosphere. Geoengineering is a back up plan in the event that other global warming mitigation efforts don't work. Novim recruited Steve Koonin to join the group and they spent several months gathering data on the subject. A core team of 10 scientists met for a week in Santa Barbara to analyze the data and produce a paper.
- Examining global surface temperature data from 1800 to present to directly determine whether the planet's temperature has increased. This contrasts with the study of proxy indicators of temperature change such as tree rings or ice core samples. The study found that the surface temperature rose 0.9 degrees centigrade over a 50 year period. The project is on-going and the group is now adding data from ocean temperatures.

- Carbon Levers, an iPod application in development that's designed to help users weigh the environmental costs and benefits of developing certain types of power generation in developing countries. Secretary of State Clinton recently proposed that the developed world invest a very large amount of money into developing world energy, so it's potentially very important that planners have accurate information.
- A meta-study of prior investigations into how much methane is released by hydraulic fracturing to access natural gas. This is significant because hydraulic fracturing is becoming common and methane is 21x as potent as CO<sub>2</sub> as a greenhouse gas.

### Choice of topics:

Novim chooses which topics to investigate based on:

- What the popular and controversial issues are.
- What funders are interested in funding. For example, the Mitchell Foundation was interested in funding the study on methane released by hydraulic fracturing.
- Suggestions from its scientific advisory board.

Topics that Novim may investigate in the future are

- Health care
- Educational reform
- Personal privacy
- Other issues connected with hydraulic fracturing for natural gas collection, such as groundwater contamination, surface contamination and the potential for the practice to cause earthquakes.

### Donors:

Novim doesn't take donations from the government or from corporations and is instead funded by individuals and foundations. Novim tries to get a wide range of donors across the political spectrum. Donors have included Bill Gates (as an individual), the Getty Foundation, Charles and David Koch, the Folger Foundation, the Arnold Foundation, and the Mitchell Foundation. Novim also receives money from smaller donors via its website.

### How Novim is different:

Novim views itself as different from other research organizations in that

- It doesn't have an ideological agenda
- It is very quick and efficient. For example, Novim's study on global temperature change cost about \$1 million, a cost that is fairly low in this field.

Novim has an impressive collection of affiliates and collaborators including:

- David Gross, physics Nobel Prize winner.
- Saul Perlmutter, physics Nobel Prize winner.
- Tom Everhart, former president of Caltech.
- Steven Koonin, former Under Secretary of Energy for Science at the US Department of Energy.
- Sir Nicholas Stern, former Chief Economist of the World Bank.
- The chairman of the Chinese National Academy of Sciences

#### Concerns about academic research:

There's a phenomenon called 'research cascading' where a well known scientist comes up with a theory and then many researchers write papers with a view toward confirming it. It would be interesting to know how much of an effect this has on research. It seems to have a big effect on the research on climate models.

Nutritional science is in some ways parallel to climate science in that a lot of the people who are involved are not scientists and the research that's being done does not consist of double blind and reproducible studies. There's a lot of data mining. I'm a supporter of Peter Attia's work on the subject.