

The New Fire Generation

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The Catalyst

The development of a usable cold fusion technology from its decades-old confinement at the fringes of mainstream science is being facilitated by a growing number of young people entering the field. This was readily apparent at the recent ICCF18 meeting with the presence of the Martin Fleischmann Memorial Project (MFMP), a group of international citizens engaged in cooperative, open-source science.

Self-organized and partially crowd-funded, this Live Open Science project began only a year ago at ICCF17 in Daejeon, South Korea when public relations and business consultant Bob Greenyer and Nicolas Chauvin (LENR Cars) simultaneously decided on doing a Kickstarter campaign to support research.

Within hours, entrepreneur Tyler van Houwelingen (LENR Proof) and Mathieu Valat (Quantum Heat), an experienced LENR lab scientist, were on board, and Ryan Hunt (Hunt Utilities Group) offered to design, machine and manufacture lab materials for the project. When he arrived home, Ryan got his dad, entrepreneur and engineer Paul Hunt, hooked, too. Soon after, the formal structure of the international crew was set up by Julian Saunders.

Now, with two labs on two continents actively running experiments, that core group has plans to expand into every corner on Earth. Driven by the need for meaningful activity, natural curiosity, and aided by the lack of jobs for young people, the MFMP is changing the way science is done in the 21st century by employing talented youth and training a fresh generation of scientists in pursuit of new energy solutions.

Technology has changed forever how science is done. Digital connectedness allows every stage of the process to be open to scrutiny and unredacted raw data is available for all to view, analyze and critique.

Says Bob Greenyer, the de-facto leader of the coalition, “Conducted in multiple locations by different nationalities, research would be resilient to attack from vested interests, and could not be stopped.”

To create a publicly available data set confirming the Anomalous Heat Effect, MFMP decided to start with the reproduction of an existing experiment. Their first project focused on replicating the excess heat measurements of Dr. Francesco Celani’s constantan wire.

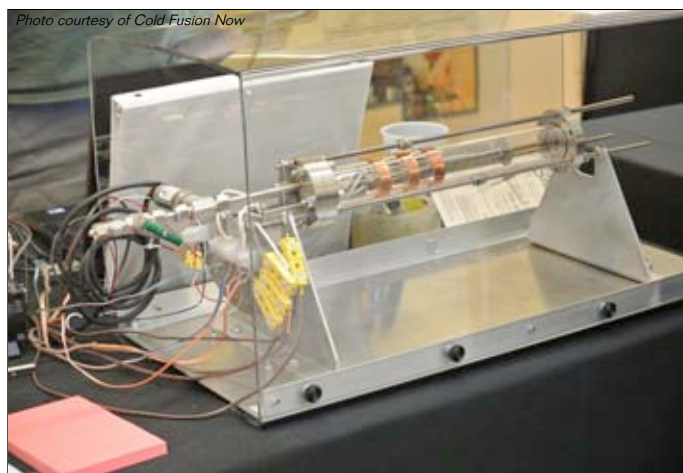
Celani, of the Italian Institute for Nuclear Physics, demonstrated his cells twice last year, first at National Instruments NIWeek 2012 and then two weeks later at ICCF17. MFMP obtained original samples of the specially treated wire, and Celani has worked closely with the group, guiding the process to match lab environments.

Every step of the experiment, including all data, and at times, live video, has been available online for the world to see at quantumheat.org. This has allowed the public to comment (even suggesting alternatives to their design) in ways that have accelerated the work, defining what Live Open Science is all about. As a result of public participation, a new calorimeter is currently being calibrated for more precise measurements, and a fresh cell design from MFMP’s newest member Robert Ellefson is being constructed.

And, the coalition is now moving forward with a new charity to further promote Live Open Science.

The New Fire Generation

“The proven capacity of the new class of reactors being developed and tested today provides compelling indications that LENR will almost certainly transform our experience of



The MFMP Celani cell display at ICCF18.



Robert Ellefson and Bob Greenyer of the new Fire Generation.

life on this planet,” wrote Ellefson to Al Gore after his climate change speech on Google Hangout. “Eventually, market forces will cause these technologies to naturally propagate and displace more expensive fossil fuel sources.”

Ellefson continued: “However, we are currently stuck in a rut of inadequate investments in research and development, along with crippling uncertainties about strategic planning while considering intellectual property protection on the part of the main commercial developers. Much time and potential is being wasted as this process slowly grinds along.”

This group of young advocates isn’t waiting for the cavalry. They intend to “solicit millions, and funnel it directly to the research organizations.”

Articles of incorporation have been filed to form a public benefit corporation with 501(c)3 status in the U.S. that will allow all donations to be fully tax-deductible. The New Fire Generation will be a separate entity purposed to administer operations for the development of Live Open Science protocols, and do it within a four-year lifespan.

“Everything about this organization will be entirely open,” says Ellefson, the Incorporator and Interim-CEO of the new group. “We’re structuring this so the administrative staff exists only as small as possible, enough to handle requests and oversee the administration of the grants, making sure due diligence on the use of the funds is maintained.”

Donors to the project can feel confident that their money is going where it needs to. A now-forming seven-member Board of Directors will decide on a set of bylaws and oversee the finances.

Ellefson reports, “The Board will make official policy decisions and approvals, so they’ll retain the fiduciary duties of insuring all checks written are appropriate. We’d like to have 100% sponsorship for all administrative function from one sponsor, who’ll then become a marquis sponsor that we’ll be proud to list as a sponsor for all MFMP administrative needs. Then, we can pledge that 100% of the non-administrative donations will go to all participating charities for research.”

International Science Advisory Board

A key goal of the New Fire Generation is developing the science surrounding the excess heat effect, which offers a path to abundant, dense and ultra-clean energy from the hydrogen in water.

Ellefson says, “We want to create a charity to solicit the big dollars from private individuals, people who have the ability to put in a seven-figure grant because they have confidence in our mission. That confidence is expressed by the distinguished scientists who will be advising us every step of the way.”

Consisting of “more than 12 and up to 36 distinguished authorities from relevant sections of the international scientific research community,” the Science Advisory Board will decide the direction of research by analyzing lab data, and putting the money where it is deemed scientifically relevant.

“The way we are structuring this is such that the Science Advisory Board is really calling the shots about where we go in terms of science,” Ellefson says. “They’ll make all the recommendations and decisions about who will be funded, and the Board will be strictly required to follow the recommen-

dations of the Science Board—unless they are prevented from doing so by law, obligation or a specific conflict with the mission’s requirements.”

Los Alamos National Lab veteran and nuclear radiochemist Dr. Edmund Storms will inaugurate the Chair of the Science Advisory Board. Ellefson adds, “This will be a worldwide board, as representative of the entire international community as possible.”

While scientists will manage the overall direction of research, the group intends for donors to be able to specify exactly where their money will go, as well. To make sure that the recipient organization is able to take the charitable funds according to U.S. Internal Revenue Service (IRS) rules, there will be a qualification process. Science advisers who have research institute experience will form the core overseers that can help guide organizations to qualify for these grants.

Universities and established research labs already have this structure in place, but “for private garage-type investigators, it’s a much bigger barrier,” says Ellefson. “We want to enable the garage people, too. There’s an enormous amount of talent out there.”

The New Fire Generation organization is designed to “handle all that paperwork and red tape expeditiously, and in as transparent a manner as possible. Right now, this kind of consideration holds people up, and we just want to make it happen faster.”

Live Open Science Protocols

Integrity of research is paramount in science, and even more so when people start putting money into an operation. One of the explicit goals of the New Fire Generation is to fund Live Open Science development using a set of criteria that ensure that integrity. These protocols will become part of the public domain and provide a template for conducting Live Open Science in the future. Contact with the open-source focused Mozilla Foundation has been initiated “to see how closely we can align with their Mozilla Science organization and work together.”

Ellefson says, “All organizations that we fund, or participate within the MFMP umbrella, are going to be required to use the Live Open Science protocols, and we’re working on a much more formalized definition of those protocols now. In fact, it’s going into our Articles of Incorporation too, spec-



Members of the New Fire Generation.

ifying that's the mechanism by which we will be releasing the inventions that are contained in the data that we come out with. We'll be publishing officially using Live Open Science."

The New Fire Generation Mission Statement indicates: "All of the Intellectual Property (IP) developed for these Live Open Science infrastructure objectives will be expressly dedicated to the public domain, and will avoid incorporation of private IP into the resulting work products. Not only will donors feel confident that their support is going to the right place, they will be able to see the results directly in the live data stream that comes from those organizations."

Discussions are currently ongoing about specific technology directions to use to accomplish Live Open Science goals. "We're planning a close integration, for example, with all the latest and greatest Google tools to enable us to publish out in the cloud," Ellefson explains. "But then we'll also have a parallel pass that has a higher level of security that is outside the corporate-level of control. A direct peer-to-peer sub-level will allow us to disseminate the live data before anybody else can touch it, so we minimize the chance of interception or manipulation of the data that way, too."

National Instruments Involvement

The MFMP is pioneering Live Open Science collaboration across oceans and continents through video streaming and remote data acquisition. To support this, the New Fire Generation is in discussion with National Instruments to purchase equipment and software at a discount price. This equipment would then be available for re-sale to those wanting to participate in the open-source project at low-cost.

"We don't intend to compete with existing retailers," Ellefson says. "Our materials will be specifically designed and configured for the particular experiments and apparatus' that we're putting together. We're configuring it with a specific technology direction to enable the Live Open Science protocols to be secure as possible."

Ensuring integrity of data over the digital networks is crucial to confidence in results. Thus, all equipment and software will be amended to have extra security and robustness so that data uploaded to the cloud can then be analyzed with complete confidence.

"We'll be writing low-level code in the National Instruments chassis that actually encrypts the data that's collected and sends it upwards into the network in a secure fashion," Ellefson reports. "This way we can have a high-level confidence in the results that are coming out, and donors can be sure that the data stream they're seeing is to the best of our ability representative of the actual experiment taking place."

Planting an Orchard to Feed the World

The trunk and roots of a tree are responsible for holding up the branches, giving them nutrients and keeping them off the ground. In an orchard, multiple individual branches having different types of fruit can be grafted onto a single tree, integrating as it grows, and cross-pollinating. The New Fire Generation uses this metaphor as a guiding principle.

Says Ellefson, "The tree that gives life is only alive for a temporary time, and that's the nature of trees. They only live

for some number of years and, in an orchard, they then get cut down and planted with a newer tree that's more productive. We hope to do exactly that."

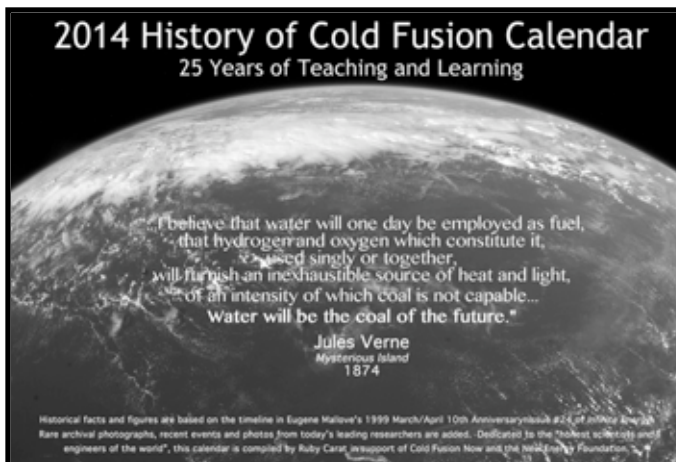
He elaborates, "After four years, we want to get out of the way and let the existing institutions for commercial and scientific development do their job. We don't need to re-create all of these entities, we just need to re-inspire them to do the right thing. In the meantime, we want to provide those essential nutrients and hold those branches off the ground so they can develop into fully mature branches, laden with fruit. We're trying to provide resources to people, both money and ideas, that enable this world-class group of folks that already exists to fulfill their ambitions, and grow them to include their colleagues who've always wondered why they've continued down this path that gets them shunned from all considerations of their future careers."

About the Author

A musician and performance artist in the 1980s, one day Ruby Carat waltzed into Temple University in Philadelphia, Pennsylvania and got a physics degree. Thinking that math might be easier, she then earned a Masters degree in Math at University of Miami in Miami, Florida. Math turned out to be not much easier, so now, she advocates for cold fusion, the easiest thing in the world. She is founder, writer and editor of the Cold Fusion Now website, and is working on a documentary. This story is reprinted from Cold Fusion Now.

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The 2014 History of Cold Fusion calendar will be available in November, in time for the 25th anniversary of the announcement of the discovery of cold fusion. The theme of this year's calendar is teachers/professors who dared follow the data. They experimented early on with Fleischmann-Pons cells, and now investigate new methods of initiating the excess heat effect and transmutations. Dates are filled with facts featuring the teachers who responded to this new energy science and gave their students the opportunity to do real and relevant science. Photos feature researchers associated with top universities around the world, close-up cell designs and students demonstrating results. Watch either of the following websites for ordering information:

www.coldfusionnow.org
www.infinite-energy.com