A Necessary Union Between Science and Faith

Conference on Adult Stem Cell Research Begins in Vatican City

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A three day conference on adult stem cell research began today at the Paul VI Hall in Vatican City. The conference was sponsored by the Pontifical Council for Culture, as well as NeoStem, one of the leading developers in the field of cellular therapy. The purpose of the conference is to not only discuss the scientific advancements in adult stem cell therapy, but also to bridge the gap between science and faith.

Cardinal Gianfranco Ravasi opened the event by greeting the scientists, researchers, scholars, doctors and patients who were in attendance. The research that will be the topic of various discussions, he said, “will have a profound impact in people’s lives.”

“You will see that this research leaves a positive trace not only in the lives of patients, but their families as well,” he said.

Cardinal Ravasi reflected on three terms in his opening address: culture, anthropology, and faith. Regarding culture, the cardinal referred to the debate between adult stem cell versus embryonic stem cell, stating that it is a “quintessential problem within our culture” which created a rift, or a division, between science and the humanities.

“Science and our anthropological quests: these two realities are bound. Otherwise science becomes blind, at times even violent,” he said. “Let us think of the humanities. Being intellectual runs the risk of thinking we are above people, that we are confined to our brains.”

Emphasizing this point, Cardinal Ravasi quoted famed scientist Albert Einstein’s message to mankind on behalf of the scientific community: “Remember your humanity and forget the rest…”

“We must recover this importance that science has in order to enrich our thinking,” Cardinal Ravasi said.

Science and Faith
The president of the Pontifical Council of Culture continued his discourse, focusing on the second aspect of his address: anthropology. Cardinal Ravasi spoke on the works of Aristotle, as well as Plato, who spoke on the division of the soul and the body.

The image used by Aristotle in his minor works states that the soul is bound to the members of the body as prisoners in Etruria are bound.” The Etrurian barbarians, he explained, would punish their prisoners by tying them face to face with corpses. “Christianity, however, has added something new: the Incarnation; the Word of God and Man’s flesh,” he said. Reflecting on the sacredness of the human body, Cardinal Ravasi stated that “we are a body; we do not own a body, WE are the body.”

“The work we do for the body is what we do for all humans. Our body is the fundamental liaison. Everything we do for our body is for all humans,” the cardinal said.

Speaking on his third point, on faith, Cardinal Ravasi contemplated on the significance of the conference taking place in Synod Hall, where almost one month ago, the College of Cardinals met for the General Congregations prior to the conclave.

“Each cardinal had there own assigned seat and we experienced the most collegial moments,” he said. “The theme of faith is in the air in this ambience, but even more so in this conference that is sponsored by the Holy

See."

"As a matter of fact," he continued, "the schism that we have to mend is science and faith. And more and more nowadays, the human person does not have one single type of knowledge."

"Think about the knowledge of love. Falling in love that has its own grammar and syntax, its own way to express itself. Think of the language of the arts that helps us to understand science through our insight."

Cardinal Ravasi stated his hope that the meetings would demonstrate how necessary the union between faith and science is. "Faith without science is blind. Science without faith is lame," he said.

"The knowledge of a person is the joining of two paths, sometimes this encounter leads to tension and this is the reason why I would like to invoke an image." Cardinal Ravasi held an image of a detail from the Sistine Chapel: the hand of God touching the hand of Adam. The image, he said, shows "the union between the transcendent figure of God and the weak hand of human nature."

Cardinal Ravasi concluded by giving the image along with an award of recognition to Dr. Robin Smith, president of the Stem for Life Foundation and CEO of NeoStem, expressing his gratitude for her efforts in bridging the gap between science and faith with her work on adult stem cell research.

'An Alliance of Heart and Mind'
Also opening the conference on adult stem cell therapy was Bishop Ignacio Carrasco de Paula, president of the Pontifical Academy for Life. Bishop Carrasco de Paula stated that the research on the application of stem cells was "very promising right now" though not without its challenges.

"The subject of the therapeutical use of adult stem cells, is a difficult challenge with clinical economic and ethical consequences. And right now, the problems I have seen that are insurmountable are of those that are embryonic.

Bishop Carrasco said that he was sorry that the Catholic Church's expectations regarding stem cell research are not understood, particularly in the fight against illnesses. However, he said, "right now, I think we proved that the Church is not against scientific research."

"There is room for a possible friendship between science and faith," he continued. "Faith is based on words, on confidence; science is based on verification of facts. They are quite different but not enemies. The Catholic faith has nothing against stem cells. They are a part of the biological world we live in. They are a demonstration of God's power, of human potential."

Bishop Carrasco stated that while the scientific research on stem cells is encouraging for people, the Church would also like to add their input on the research.

The cultural impact of the discussions on adult stem cell research, he said, "will be deep and will have an impact in the quality of life of our patients."

"I think that this must become a real benchmark for our society. We must build an alliance between heart and mind. Our patients will be deeply grateful to us," he concluded.

Vatican Conference Hopes to Promote Truth on Adult Stem Cell Therapy
Doctors, Patients Speak on Personal Experiences

During today's first session of the Second International Vatican Adult Stem Cell Conference, scientists, doctors and patients had an opportunity to share not only the advances in adult stem cell research, but also the

potential it has to transform modern day health care.

The ethical debate on the use of embryonic stem cells has, according to Dr. Robin Smith, stifled the advances made in adult stem cells, which are derived from adult tissue samples. Dr. Smith serves as president of the Stem for Life Foundation as well as CEO of NeoStem, a leading developer in cellular therapy.

Stem Cell Therapy, especially using cultivated adult stem cells , can be used to regenerate dying tissue in the body of a person suffering debilitating diseases, such as Alzheimer's, Parkinson's, or Multiple Sclerosis (MS).

"In November 2001, we kicked of the first Stem Cell Conference. Since then, the entire world has awakened."

"By improving the clinical outcomes, we can save hundreds of millions of lives," she said. "We're not talking about medications," she continued. "We're talking about repairing the heart with adult stem cells. Re-inserting these cells into a damaged organ is turning back the clock. In just 17 months, we have seen stunning advancements in leukemia treatments."

The work in stem cell research has only begun to be understood. The last conference did not have panels that discussed the benefits of cellular therapy on MS and diabetes. Dr. Smith stated that in the United States, $245 billion is spent on managing diabetes, which can cause blindness, stroke and amputations which is "only getting worse."

"Cellular therapy has the potential to rewrite the history of this disease," she said. "Adult stem cells is something we can all agree upon; they are ethically pure. We can grasp what's inside of us and introduce them into the body."

The purpose of the conference, she concluded, was meant to inspire change and to promote the truth and promise behind stem cell science. "We hope to show that you no longer have to choose between science and faith.

In Search of Hope
Moderating the first day of the conference was NBC News correspondent Meredith Vieira, who along with husband and veteran journalist, Richard M. Cohen, opened up on Cohen's battle with MS.

The choice to attend the conference, Vieira said, "was a personal one." In an emotional moment during her address, Vieira said, "I'm not only a journalist looking for answers; I'm a wife looking for hope."

Despite the fact that there are currently no treatment available for those suffering from secondary progressive MS, "cell therapy has given hope."

Continuing on the theme of hope, Cohen wished to emphasize its importance, despite that it is "elusive, difficult to grasp and hard to sustain."

"When i was diagnosed 40 years. my neurologist only said 'I'm sorry' and never talked about a plan. There was no therapy available [for MS].

"Its hard to get up everyday and look in the mirror. We are not the people we used to be in terms of what we do and who we are. The assault on us is not just on our bodies; it's in the spirit, on how we see ourselves, our self-esteem, our self- confidence, our willingness to go out and try to have a future. Its a very daunting task."

Cohen stated his belief that adult stem cell therapy is the future, acknowledging that he gave up going to a neurologist and conventional therapies, simply because "they don't work significantly enough."

I look at MS and the work being done [in adult stem cell therapy] and its extraordinary, i believe in the future, that patients like me won't be going to conventional therapies. We're going to all seek cell therapies," Cohen

said.

Dr. Saud A. Sadiq, a board certified neurologist who has done extensive research on the cause of MS in order to find a cure, was the first panelist to speak. Given the context of the meeting held in the Vatican, Dr. Sadiq commented on the importance of faith in confronting illness. “I’m a strong believer in the faith and I use it to counsel my patients […] when they start to lose hope,” he said.

“When we find moments of darkness, when we see patients like Richard [Cohen], we draw from faith the hope to continue. I also receive inspiration and hope from all my patients.”

A ‘Paradigm Shift’ in Medicine

Dr. Richard Burt, chief of the Division of Immunotherapy at the Department of Medicine in Northwestern University in Chicago, stated that there is a “paradigm shift” in using adult stem cell therapy. “It is a one time treatment as opposed to continuous medical treatments.”

Dr. Burt went onto say that adult stem cell therapy is safe and doesn’t use cancer drugs, such as radiation, while building up an entirely new immune system.

Two patients who received stem cell therapy under Dr. Burt’s care, Roxane Julia Beygi and Jim Danhakl, shared with participants their positive experiences after receiving adult stem cell therapies. Beygi stated that conventional medicines only added to her problems, which included difficulty walking, dizziness, and disorientation.

“Since having the transplant, my life has changed,” she said. I’m thinking about what courses or universities I should attend. Even the clothes that I have to wear. I think about my future. I have a future now.”

Danhakl, who served as a Navy fighter pilot for 25 years, spoke on his struggle and the hope he received from Dr. Burt’s treatments.

“I went from running a marathon to barely able to walk 200-300 feet,” Danhakl said. “When your life is being robbed of you, its very difficult to have hope.

“By the time i saw Dr. Burt, i was in a wheelchair, then bedridden. i would pass out, severe double vision, hearing going in and out. Old friends were coming to visit me to say goodbye, and I was thinking “This is it.”

Danhakl said that within two weeks of receiving the adult stem cell treatment, he began taking his first steps. Within a month, he began to walk without the use of a walker and is now completely normal. Despite have some occasional pain on his feet, Danhakl said it was small compared to being at death’s door.

After thanking Dr. Burt for saving his life, Danhakl expressed his amazement at the fact that such therapy is unknown throughout the world. “This procedure,” he said, “is saving people, like myself and Roxane.” I hear people talk about MS and say there there is no treatment and I’m like ‘Why isn’t this shouted from the mountain top.”

Concluding the first session of the day, Neil Warma, CEO and President of Opexa Therapeutics, at first admitted that he could not see the connection between the Vatican and science in hosting the three day conference. After becoming familiar with the previous conference, Warma said that he “appreciated the Vatican’s approach to education.”

The world is finally waking up to the potential that cell therapy has to offer,” he said.

The CEO of Opexa explained the benefits of Tcelna, a T-cell immunotherapy for Multiple Sclerosis. Tclena, he said, “may have the potential to address the significant unmet medical needs of the large MS community.”

Tclena uses the patient's own cells, by isolating T-cells in patients, expanding those cells to a therapy, and re-inserting them into a patient. Warma stated that the "patient's own cells act as the drug" in rebuilding damaged tissue.

Although Tcelna has passed the second phase of clinical trials, Warma stated that there is still much time left before it is made widely available. "Today's meeting is a significant step in bringing therapies to the patients in need," he said.