## You owe your brain to this woman



Dr. Rita
LeviMontacini
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Previously I had written about Dr. Rita Levi-Montalcini as part of a remarkable woman series. Like so many remarkable women, few of us had never heard of her or knew of her contributions. There were two things that stood out. The first was her ground breaking research and second that she was still professionally active after her 100<sup>th</sup> birthday.

Her life was dedicated to discovering how cell proteins grow to create the vast neuro-networks that allow our brain to exist and function.

She was challenged by her father's objections to becoming a doctor, forced to conduct her embryonic research in her bedroom during the Italian dictatorship of Mussolini during World War II and had to flee her native Turin during German occupation.

Her years of commitment laid the foundation to the

understanding of cell growth and development. She would go on to discover with Dr. Stanley Cohen the building protein "nerve growth factor" and would share the 1986 Noble Prize in Physiology or Medicine.

This work became the **key to unlocking the role cell dysfunction in catastrophic diseases** such as cancer and Alzheimer's, and permitted Dr. Cohen carry on research into the regulation of cell growth in breast cancer.

Dr. Levi-Montalcini died on December 30, 2012 at age 103, and that too may be added as a remarkable achievement. However, there is something even more remarkable that we can discern from her life.

Dr. Cohen described Dr. Levi-Montalcini as an *intuitive* observer " ... possess[ing] a rare combination of intuition and passion, as well as biological knowledge."

In 2009 when she when she reached the  $100^{\text{th}}$  milestone, she described herself as having "… a mind that is superior — thanks to experience — than when I was 20… ."

In her autobiography she writes -

"It is imperfection — not perfection — that is the end result of the program written into that formidably complex engine that is the human brain," ... "and of the influences exerted upon us by the environment and whoever takes care of us during the long years of our physical, psychological and intellectual development."

## What is remarkable here?

- It tells us that even in the hard-core, logical scientific method of research, the intuition of women has a significant role to play.
- It helps us to understand that aging can be productive and rewarding long past any retirement age as we build

on our experience.

• And finally, it tells us that the argument over nature vs. nurture is futile in a world that can function on imperfection.

All of this wisely figured out by a woman who could look at the very essence of the cells that become your brain.

## Source:

http://www.nytimes.com/2012/12/31/science/dr-rita-levi-montalcini-a-revolutionary-in-the-study-of-the-brain-dies-at-103.html? r=1&

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