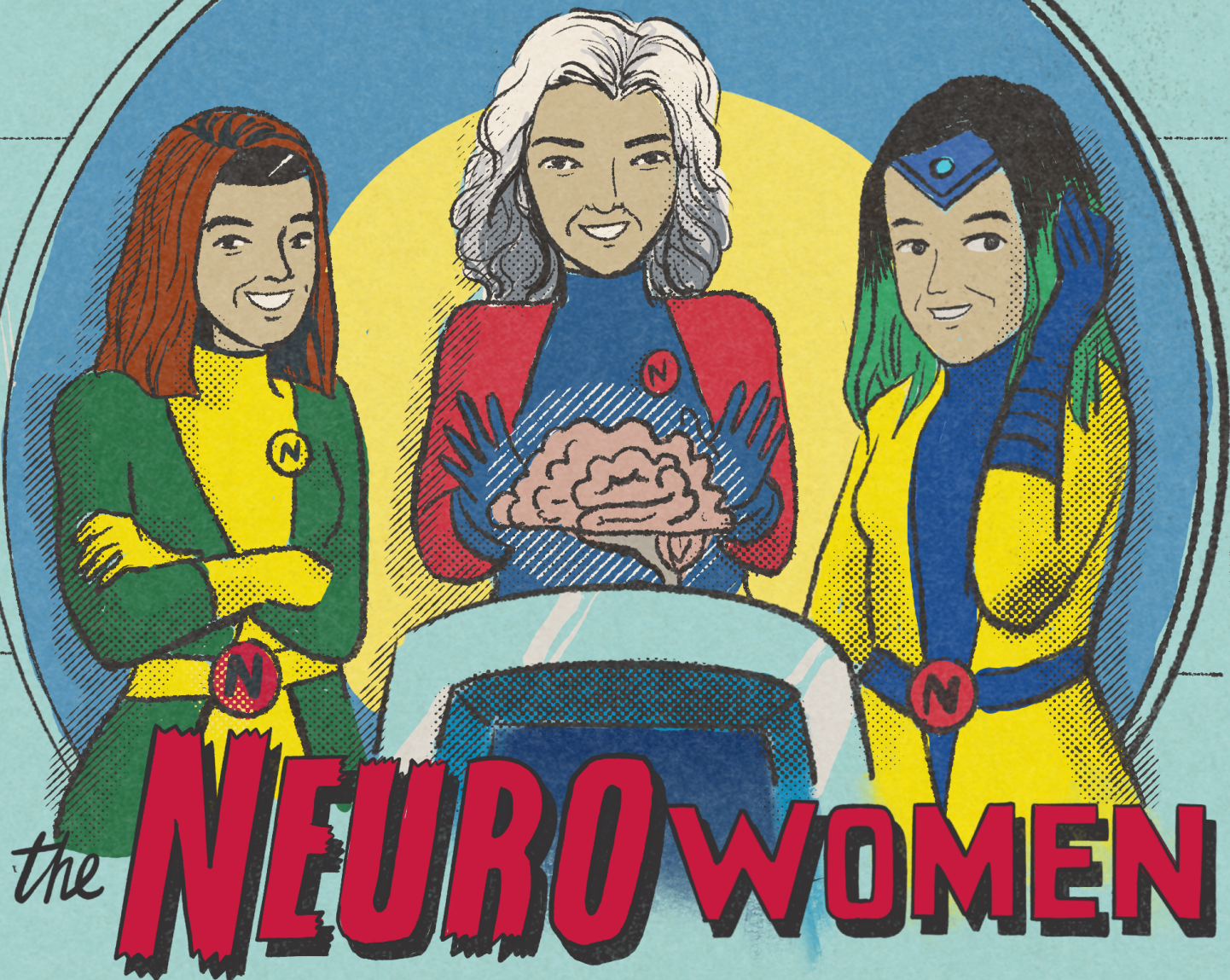




FUNDACIÓN
RAMÓN ARECES

by MECUSA & QUAN ZHOU



the

NEUROWOMEN

NEUROSCIENCE EXPERTS

BY UNRAVELING THE PROCESSES OF OUR BRAIN
WE WILL BEGIN TO UNDERSTAND WHAT MAKES
US HUMAN

A WORD ANA CLARA BOBADILLA USES TO DEFINE HERSELF IS "MIGRANT"

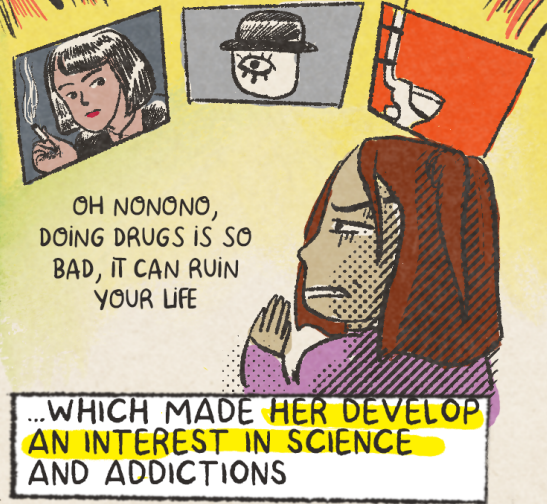
ALTHOUGH I WAS BORN IN ARGENTINA, PEOPLE DON'T THINK I'M FROM THERE, AS I WAS RAISED IN MADRID. IN SPAIN I'M NOT CONSIDERED SPANISH BECAUSE OF MY ARGENTINIAN FAMILY. AND WHEN WE MOVED TO FRANCE I HAD TO LEARN FRENCH.

IT IS HARD TO ALWAYS FEEL LIKE THE OUTSIDER.

HER PARENTS ARE SCIENTISTS, WHICH ALLOWED HER TO MEET DIVERSE PEOPLE FROM THEIR RESEARCH GROUPS



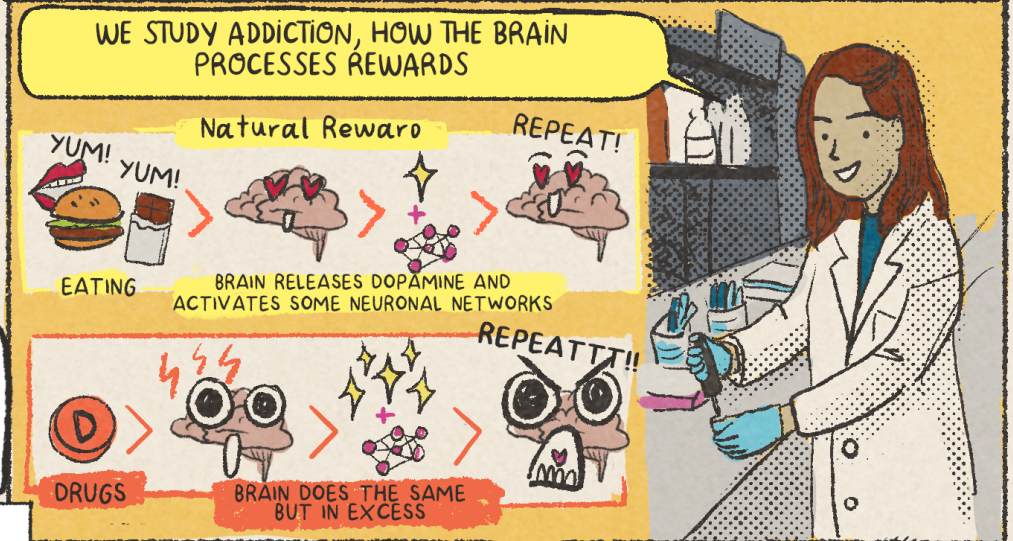
ALSO, ANA CLARA LOVED TO WATCH CULT MOVIES FROM THAT TIME...



SHE FINISHED HER STUDIES IN FRANCE, AND THEN APPLIED FOR SEVERAL SCHOLARSHIPS

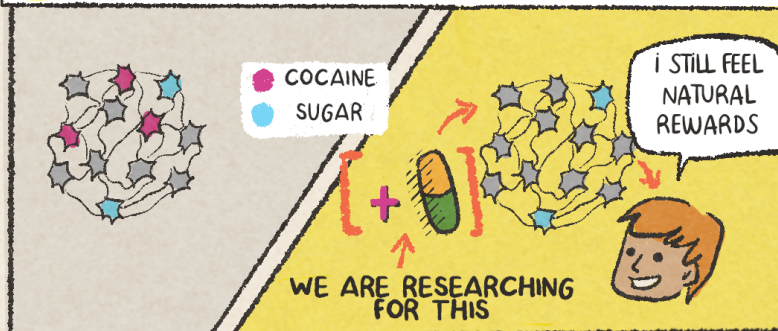


IN 2020 SHE WON ANOTHER GRANT AND STARTED HER OWN LAB AT THE UNIVERSITY OF WYOMING'S SCHOOL OF PHARMACY



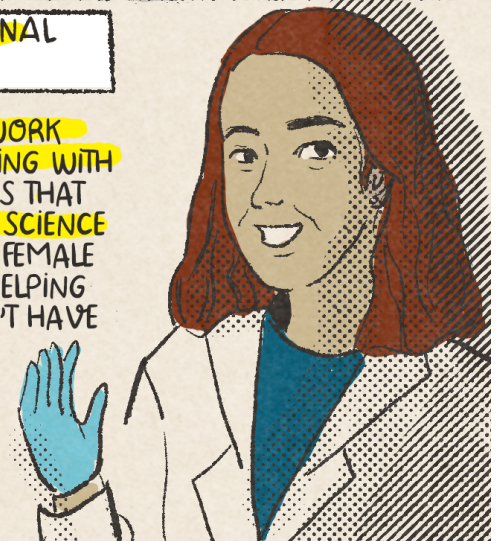
ANA CLARA MIGRATED AGAIN

HER LAB DISCOVERED THAT DRUGS ACTIVATE DIFFERENT NEURONAL NETWORKS THAN THOSE ACTIVATED BY NATURAL REWARDS

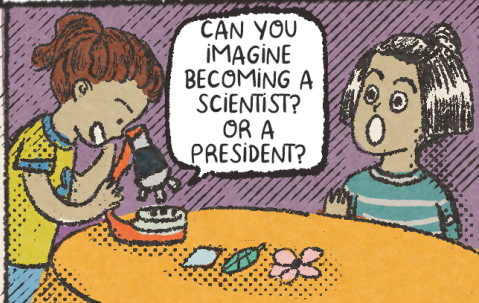


IF WE MANAGE TO MODIFY THE NEURONAL NETWORK ACTIVATED BY DRUGS, WE COULD FIGHT ADDICTION

I COMBINE MY WORK WITH VOLUNTEERING WITH DIFFERENT GROUPS THAT HELP WOMEN IN SCIENCE BY: SUPPORTING FEMALE SCIENTISTS, OR HELPING THOSE WHO DON'T HAVE A CONNECTION TO THE SCIENTIFIC WORLD DUE TO LACK OF RESOURCES



SUSANA MARTÍNEZ-CONDE, FROM LA CORUÑA, FELL IN LOVE WITH SCIENCE PLAYING WITH HER FAVORITE TOY, A MICROSCOPE



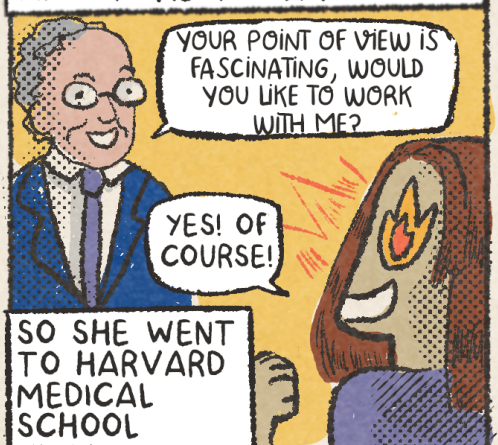
BUT THE LACK OF ROLE MODELS MADE HER THINK IT WAS NEARLY IMPOSSIBLE

SHE STUDIED PSYCHOLOGY, BUT WAS FASCINATED WITH RESEARCHING THE BRAIN AND THE MIND



AND EVENTUALLY BECAME A RESEARCHER

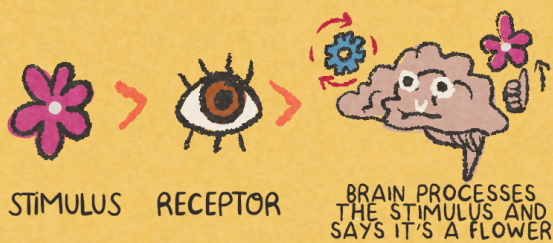
IN A CONFERENCE SHE MET HER SCIENTIFIC IDOL, DAVID HUBEL. SHE TOOK COURAGE AND SPOKE TO HIM



CURRENTLY, SUSANA IS FULL PROFESSOR OF OPHTHALMOLOGY, NEUROLOGY AND PHYSIOLOGY AND PHARMACOLOGY AT THE STATE UNIVERSITY OF NEW YORK

SHE SPECIALIZES IN PERCEPTION AND COGNITION, AND STUDIES:

OUR INTERPRETATION OF REALITY IS NOT BASED ONLY ON WHAT OUR EYES SEE, THE BRAIN PLAYS AN IMPORTANT ROLE TOO



AND JUST LIKE EVERY PERSON IS UNIQUE, THEIR PERCEPTION IS TOO

HOW OUR EYE MOVEMENTS AFFECT VISUAL PERCEPTION AND HOW OUR VISUAL PERCEPTION AFFECTS THE MOVEMENT OF OUR EYES

EX: MAGIC TRICKS THE CARD DISAPPEARS FROM YOUR PERCEPTION WHEN YOU FOCUS YOUR ATTENTION ON THE WAVING WAND



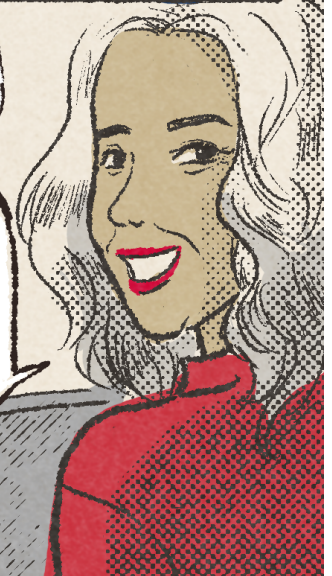
SHE COMBINES HER RESEARCH WITH A GREAT DEAL OF SCIENCE COMMUNICATION AND OUTREACH

IT'S IMPORTANT TO COMMUNICATE SCIENCE SO PEOPLE CAN HAVE ACCESS TO TRUE FACTS

I ALSO LOVE IT WHEN YOUNG PEOPLE TELL ME THEY STUDY NEUROSCIENCE BECAUSE ONE OF MY TALKS INSPIRED THEM, BECOMING THE ROLE MODEL THAT I NEVER HAD

TED

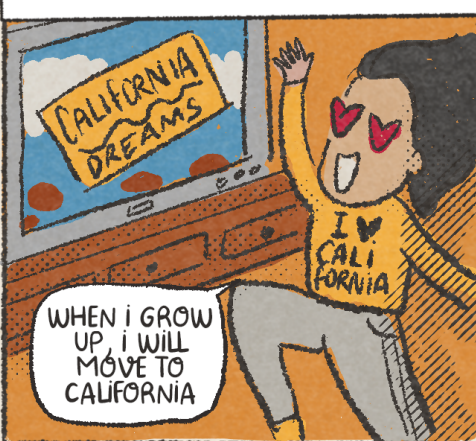
SCIENTIFIC AMERICAN



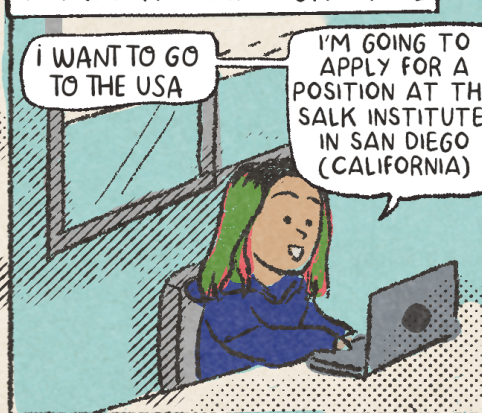
THE ASTURIAN ELENA BLANCO-SUÁREZ GOT INTO SCIENCE AFTER WATCHING "ALIEN"



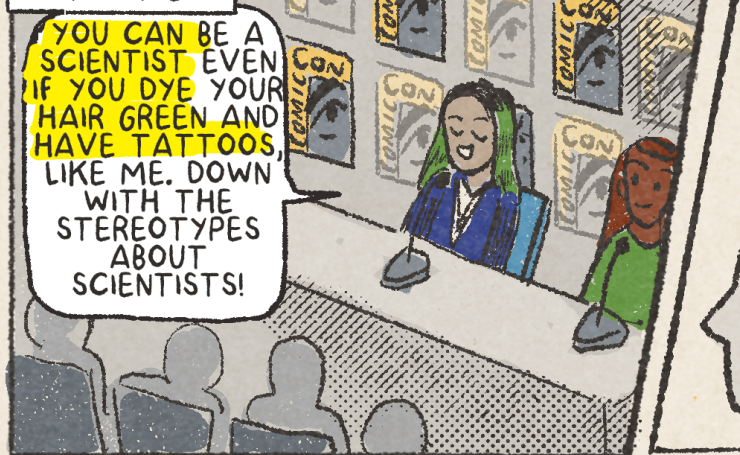
ALSO, SHE ALWAYS WANTED TO MOVE TO THE USA. IN HER HEART, ELENA WAS CALIFORNIAN



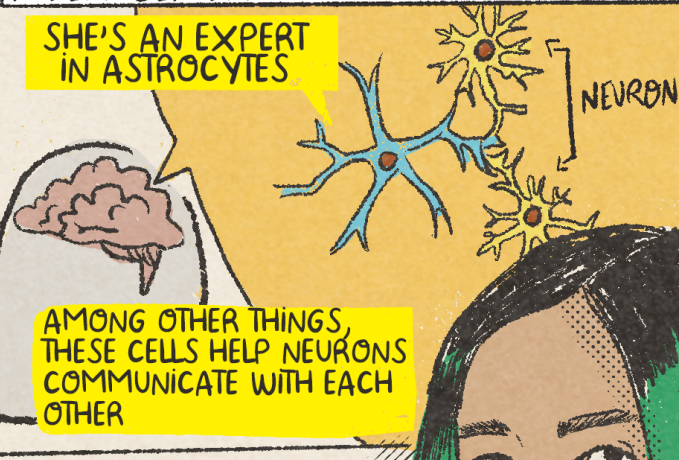
THANKS TO HER PARENTS' AND TEACHERS' SUPPORT, ELENA WORKED HARD AND CONTINUED HER TRAINING IN MADRID AND BRISTOL



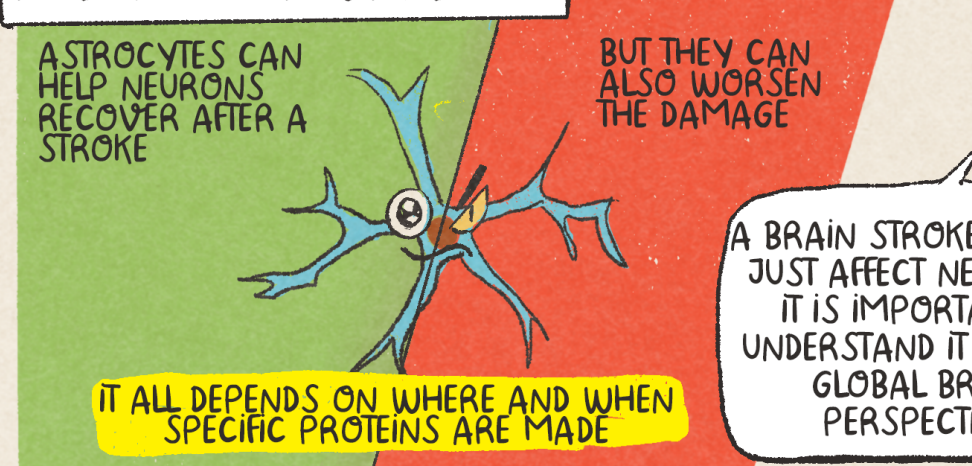
AFTER GETTING THE JOB, ELENA JUGGLED HER WORK IN THE LAB WITH SCIENCE OUTREACH AND COMMUNICATION ACTIVITIES



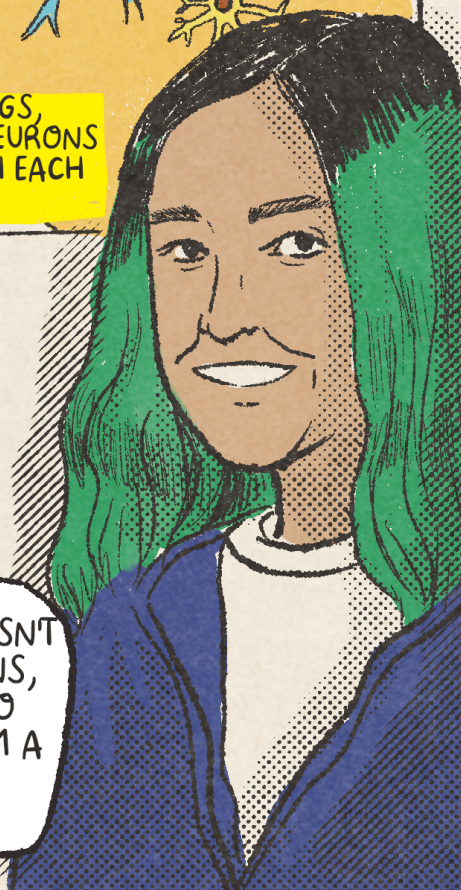
CURRENTLY, ELENA IS ASSISTANT PROFESSOR OF NEUROSCIENCE AT THE THOMAS JEFFERSON UNIVERSITY, IN PHILADELPHIA



ELENA STUDIES THE ROLE OF ASTROCYTES AFTER A BRAIN STROKE. WHEN A STROKE HAPPENS, NEURONS GET INJURED OR DIE AND THUS THE AFFECTED PERSON LOSES PHYSICAL ABILITIES



A BRAIN STROKE DOESN'T JUST AFFECT NEURONS, IT IS IMPORTANT TO UNDERSTAND IT FROM A GLOBAL BRAIN PERSPECTIVE



STILL LOTS REMAINS TO BE DISCOVERED

ANA CLARA

WE NEED TO SHOW THAT THE NEURONAL NETWORKS ARE SPECIFIC. UNTIL NOW WE DIDN'T KNOW THAT THE NEURONS THAT GET ACTIVATED WITH DRUGS VS THOSE ACTIVATED BY NATURAL REWARDS ARE DIFFERENT

SUSANA

IF WE UNDERSTAND THE MECHANISMS OF PERCEPTION, HOW THE BRAIN INTERPRETS AND SIMULATES REALITY, WE CAN BEGIN TO UNDERSTAND CONSCIENCE, BUT THERE'S STILL A LONG WAY AHEAD OF US

ELENA

TO DECIPHER HOW DIFFERENT CELL TYPES IN THE BRAIN INTERACT WITH EACH OTHER IN DIFFERENT CONTEXTS. SO WE CAN UNDERSTAND HOW AGING CHANGES THESE PROCESSES AND AVOID NEURODEGENERATIVE DISEASES



It's false that humans use less than 100% of their brain
**THE TRUTH IS THAT WE DON'T UNDERSTAND THE
PROCESSES OF OUR BRAIN 100%, SO WE MUST
CONTINUE RESEARCHING**

the **NEURO**WOMEN