

FISH MUCUS AND FOOT FUNGUS – Gian Dapul

When I was in 6th grade, I hated Mathematics. You would have, too, if you had my teacher. He would drop huge workbooks on our tables and croak, “*Thirty problems, fifty minutes.*” A lot of these problems seemed unsolvable, so we complained: “*Sir, there are no answers to these!*” But then he’d reply, “*To every question there is an answer, to every problem there is a solution.*”

Although I’m only sixteen years old and an incoming 4th year high school student, I know that my country has more problems than any Mathematics book. Strangely enough, the answers to some of our problems are **fish mucus and foot fungus**. These seemingly improbable items are products of what we call **scientific research**.

Research turns our guesses into real knowledge, serving as **the sifting pan** of our hypotheses. It challenges what we assume, because, as they say, if you only learn from what you **ASS-UME**, you make an “**ass**” out of “**u**” and “**me**”.

In the early 1800s, someone warned that the streets of London would be filled with horse manure due to the uncontrolled use of horse-drawn carriages. Of course, that never happened. Combustion engines, products of research and invention, replaced horses, and the manure piled up in Parliament instead.

While on the subject, few people know that the most expensive coffee in the world is taken from the **droppings of the Asian Palm Civet** found in the Philippines and Indonesia. The small mammal **excretes the coffee berries it eats**, and forest trackers recycle **the fruity feces** to create what is known as **Kopi Luwak in Indonesia or Kape Alamid** in our country. Research has led to a synthetic process that simulates the droppings' exotic flavor and quality.

So, who’s had coffee with their breakfast? Well, soon nobody will have had coffee and breakfast if the looming global food crisis worsens. Are you all feeling fine? Well, nobody might be fine for long if some new disease creeps up on us.

Health can be enhanced and life can be extended. The **nudibranch**, a beautiful, soft-bodied creature unfairly called a “**sea slug**” — a favorite among underwater photographers for its marvelous colors and shapes — has actually been used in tumor research. Samples of fish mucus have also displayed certain antibacterial properties.

And as the Home Shopping Network would say, “*Wait! There’s more.*”

Certain types of infectious fungi that coat some of your toes here form beneficial relationships that support plant growth. The International Rice Research Institute based in the Philippines continues to develop ways to improve rice growth and help alleviate the current food crisis.

New challenges are coming, and they will always confront us. What we need is an army of scientific researchers that will help find the solutions in advance. I want to be part of that army that would cross the new frontiers first.

If only we could make science fairs and contests as popular as the thriving “Pop Idol” franchise. Although I’m not sure if Simon Cowell’s sardonic comments will sit well with my peers. But we need the same hard-hitting passion in research and invention.

To conduct research is to be innovative; *avant-garde*. Researchers are like artists with test tubes and lab gowns instead of paintbrushes and smocks. When I graduate from the **Philippine Science High School** next year, I want to begin my “**masterpiece**” and apply for a **university degree in Biochemistry**.

But sometimes, I am discouraged by those who say that a researcher from a Third-World nation is like a Jesuit adhering to a vow of poverty, **or worse**, like a Benedictine monk observing the vow of **chastity**. It is indeed a challenge, but it’s also another frontier to cross, for me and many young people like me.

We Filipinos are well known for their dedication to service, in foreign homes, hospitals and hotels. In the hotel, I found three Filipinos working there. I want to be one of the pioneers that will make the Philippines known for its excellence in scientific research, as part of the driving force that will expand our horizons towards tomorrow. And I intend as a Ito have **a lot of fun while doing it**.

Going back to my math teacher, I eventually realized that, well, he was right. As he said, “*To every question there is an answer, to every problem there is a solution.*” We just have to go looking for the right ones. Who knows? Maybe one day we’ll be answering the questions that haven’t been asked yet.