

Mexican researcher wins and designs the cover of a scientific journal



Dr. **Grissel Trujillo**, a Mexican researcher at [Tec de Monterrey](#), was the **winner** of the cover design for the scientific journal **Material Advances**, published by the [Royal Society of Chemistry](#), a scientific society in the **United Kingdom**.

Grissel told **CONECTA** that she was given the chance to design the cover of the **July 2021 issue**, after it included a **scientific review** led by her on the subject of **synthetic polymers**.

*"It's a review, which is like a **synopsis** or a **critical analysis** on a certain topic. In this case, it's a review of **synthetic polymers** that have been used in **biomedical applications** which **focuses on tissue engineering**,"* explains the Tec research professor.

The **authors** of the [article](#) were **eleven expert researchers** from **Tec de Monterrey**, [Harvard University](#) in the United States, and the [University of Naples](#) in Italy.

Portada de la revista. width="1920" loading="lazy">

How she designed the cover in her own kitchen

Journal editor Elizabeth Cosgriff invited Grissel to **design the cover** after she had read the review on **polymers** directed by the researcher.

Grissel says that the **Material Advances** journal is one of **the newest** from the *Royal Society of Chemistry*, so she was flattered to be chosen.

*“It’s **flattering** that they’ve given us **the cover** at this point because they were just **establishing the journal** and they had to be very **selective**.”*

*“Actually, she offered us the **back cover**, but then **they liked it so much** that they gave us the **front cover**,” says Trujillo, smiling.*

*“It’s **flattering** that they’ve given us **the cover** at this point because they’re **establishing the magazine** and they have to be very **selective**.”*

The image that Grissel designed, which appears on the cover of the journal, is **fettuccini colored** green, red, orange, blue, purple, and yellow and **intertwined** in the **shape of a ball to simulate a polymer**, with the letters **RGD** in front.

*“It’s an **example** to **explain polymers** that I use a lot in my **biomaterials classes**.”*

*“Each **strip** represents a **polymer molecule**. The letters **RGD** are a **triad of amino acids** that molecules use to adhere to a surface. As **synthetic polymers** don’t have them, they’re added,” explains the researcher.*

La portada es una representación de cómo interactúan las propiedades de un polímero sintético
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According to Trujillo, **polymers** mix certain **properties** such as being **thermal or mechanical** and may have some **biomedical applications**, such as a **gel** that can **simulate some part of the human body** or an **organ**, as well as other uses.

Her husband **Mario Álvarez**, who’s also a **co-author** for the same **investigation** and with whom she runs the [Alvarez-Trujillo Lab](#) at Tec de Monterrey, helped Grissel take a photograph of the plate with the colored pasta.

*“The **analogy** was one of the things that drew the **editor’s attention**. (She asked me:) How could Grissel **explain a concept** as difficult as a functional **polymer** in a **dynamic way?**”*

“We bought the pasta, Grissel dyed it, then put it together, and we took the photo in the kitchen. We used a photo studio that we bought on Amazon,” says Álvarez smiling.

<https://www.facebook.com/griss.santiago/posts/10160159925228561>

The article on polymers that won her the cover

Both researchers explain that a **scientific review aims** to present relevant and **current research information** in an area.

The review "[*Engineering bioactive synthetic polymers for biomedical applications*](#)" brings together the work of researchers in the creation of **synthetic polymers** in **foam**, **3D printing**, and **fibers**, as well as others, with biological applications.

Trujillo says that in this **review**, they gathered **information** from **315 references** on the work of researchers in this area.

*"It's to give (the audience) **news** of the **advances** over the **last 10 years** and it's incredibly valuable, as we've already reviewed the 315 articles, so they don't have to go through them all individually.*

*"Someone has already made a **thorough search** and the information is **compact and broken down**. We identify the challenges for the future and the perspectives,"* says Trujillo.

The researcher adds that although there were already **studies** on **synthetic polymers** that have had **applications** in various areas, there was no **review**, so Grissel overcame the **challenges** and created one.

Grissel Trujillo obtuvo la portada tras una revision científica en la misma revista Material Advances
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The challenges of doing a scientific review

Coordinating a multidisciplinary group was one of the biggest **challenges** Grissel faced during the review.

*"**Each one** (of the researchers) sees the **project** from a **different perspective** and each one may be interested in a different aspect,"* she says.

Visualizing something that would be **interesting** to a researcher was the **first step** that Trujillo took in putting together the document.

*"Then we established the **structure** within each of the sections. For example, as this has to do with **biomedical applications** and **biomedical concepts**, we had to go into those sections to give an **interpretation**,"* she says.

https://www.instagram.com/p/CSNNCJTI3Vf/?utm_medium=copy_link

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Grissel Trujillo realizó una revisión científica en la revista Material Advances sobre polímeros
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Previous cover designs

This isn't the first cover that **Grissel and Mario** have had as a laboratory, and it isn't even the first that they've done for a *Royal Society of Chemistry* journal. In **2018**, Mario got the cover of [Material Horizons](#).

*“This year, we've done very well with **covers**. They gave us one for a **material** that we **developed** from a **corn protein** for **3D printing**.”*

*“It's **important** for **marketing** in the **field of science**. It's how the editor (of a scientific journal) can show that there are important articles inside,”* says Grissel.

Mario points out that as a **research group**, they have around **nine or ten covers** so far.

*“At the **LATAM** level, there are no groups that **have so many**. Ten is a respectable number in the international academic community.”*

*“It's very **important** for the **institution**. Little by little, we're **establishing Tec de Monterrey's** name in the field of **graphic art, science, and scientific marketing**,”* Álvarez says.

*“**Little by little we're establishing the name of Tec de Monterrey in the field of graphic art, science, and scientific marketing.**”*

What's more, this **isn't** the **first review** of this **type** by **Grissel Trujillo**, as she **previously** published a similar one on [osteogenic bioprinting](#) that had **more than 1,050 citations**.

*“One **reference** for the entire **global community**. With this article, we've just reached **1,050 citations**, which is a **spectacular number**,”* says Álvarez.

*“These covers **open the doors** not only to us as **researchers**, but to **our students**. We want it to be a **hallmark of quality**,”* concludes Trujillo.

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