

# Science Communication

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Técnico Doctoral School  
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# How to tell a (science) story

**LO QUE  
CONTAMOS  
LOS  
CIENTÍFICOS**

**DIVULGACIÓN  
CIENTÍFICA**

**LO QUE LE  
GUSTA A LA  
GENTE**

# Talking about your science

## 1. Know your audience

What is the key idea I want them to have as take home message?

## 2. Mind your language

The curse of knowledge

## 3. Storytelling

Cut the jargon but don't cut the poetry

It's not you. It's me.

Aaah...just kidding. It's  
totally you.





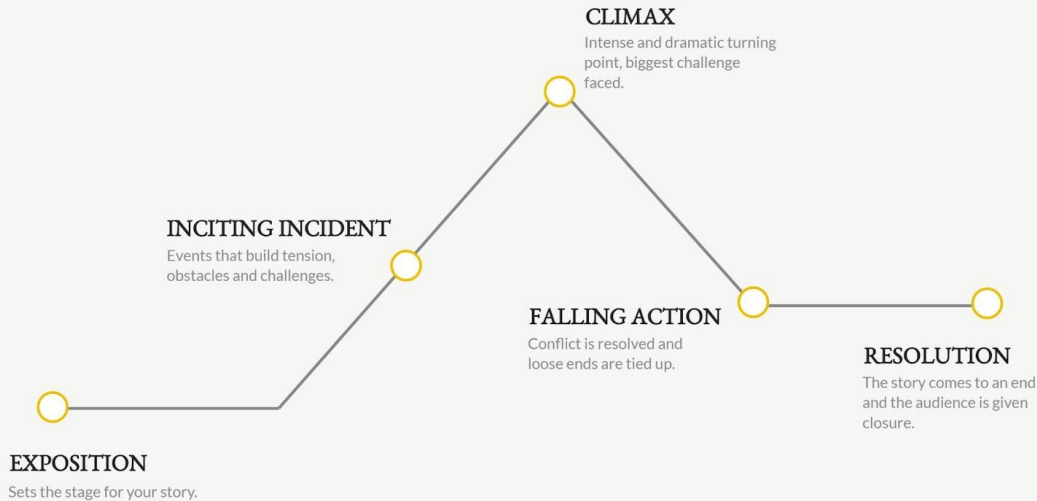
Testa pesante, Ivan Lardschneider

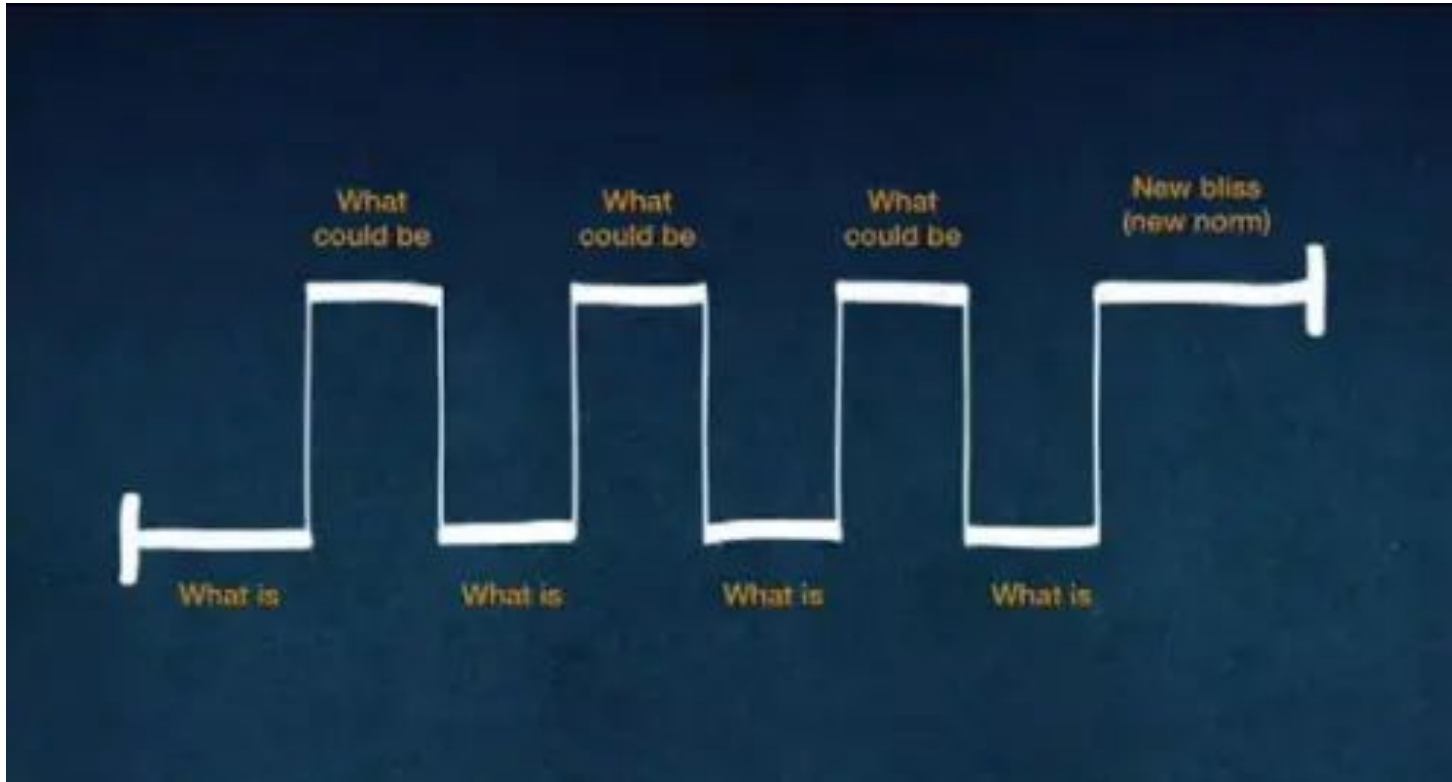
What's your story?



# The story arch

## UNDERSTANDING STORY ARC





The secret structure of great stories, Nancy Duarte.

[https://www.ted.com/talks/nancy\\_duarte\\_the\\_secret\\_structure\\_of\\_great\\_talks](https://www.ted.com/talks/nancy_duarte_the_secret_structure_of_great_talks)

# Important notes on presentations

- Provoking a physical reaction during your presentation (laughing or clapping), enhances the sense of engagement in the audience
- Knowing when to pause is important to help guide through your ideas
- Creating scenes with your words
- Using familiar references to your audience

# Role models



**Do schools today kill creativity?** Ken Robinson

[https://www.ted.com/talks/sir\\_ken\\_robinson\\_do\\_schools\\_kill\\_creativity](https://www.ted.com/talks/sir_ken_robinson_do_schools_kill_creativity)

# Your story on stage

Talk with your voice and your body  
Listen and dialogue



Take responsibility  
Overcome stage fright

# How to tell your story

## **Be understood**

Introduce layers of complexity gradually

## **Be memorable**

People remember roses, not flowers

## **Make me care**

Make it about them

# How to tell your story

## **Know your goal**

Structure your presentation to get there

## **What do they want from you**

Why are they there?

## **What do you want from them**

Why are you there?



Dr. Anthony Fauci lays out three ways future scientific communicators can build trust:

- 1) Always go by the data
- 2) Admit when you don't know something
- 3) The goal is not to show how smart you are. It's to get people to understand what you're talking about.

[#FauciAtYale](#)

[Traduzir Tweet](#)



 Global Health @ Yale e mais 3

8:38 PM · 26 de out de 2020 · Twitter Web App

**3,7 mil** Retweets **1,2 mil** Tweets de comentário **11,4 mil** Curtidas



## **Top 10 Mistakes Scientists Make When Engaging Policymakers:**

**1. Talking too much about science, too little about its implications.**

**2. Saving your conclusions for the end.**

**3. Too much information.**

**4. Using jargon.**



**5. Preaching to the choir**

**6. Starting without a strategy**

**7. Choosing an unpersuasive frame.**

**8. Not having a clear ask.**

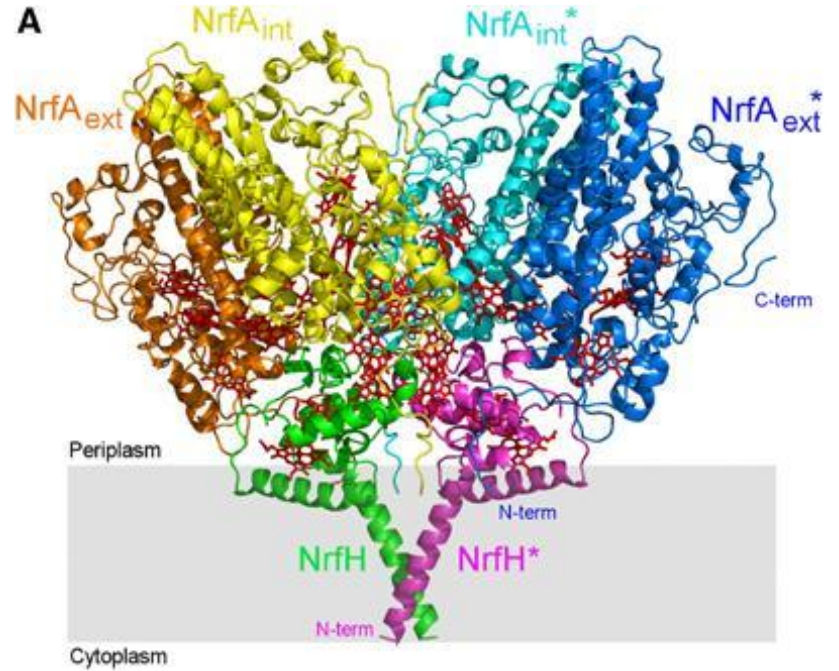
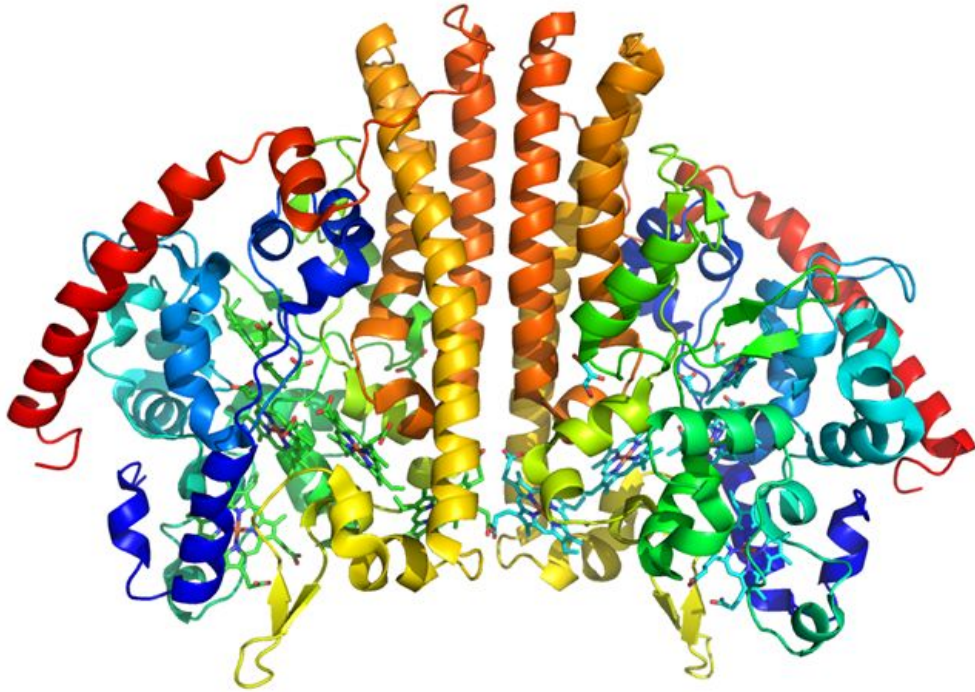
**9. Thinking communication is just one way or one time.**

**10. Moving at academic cycle times**

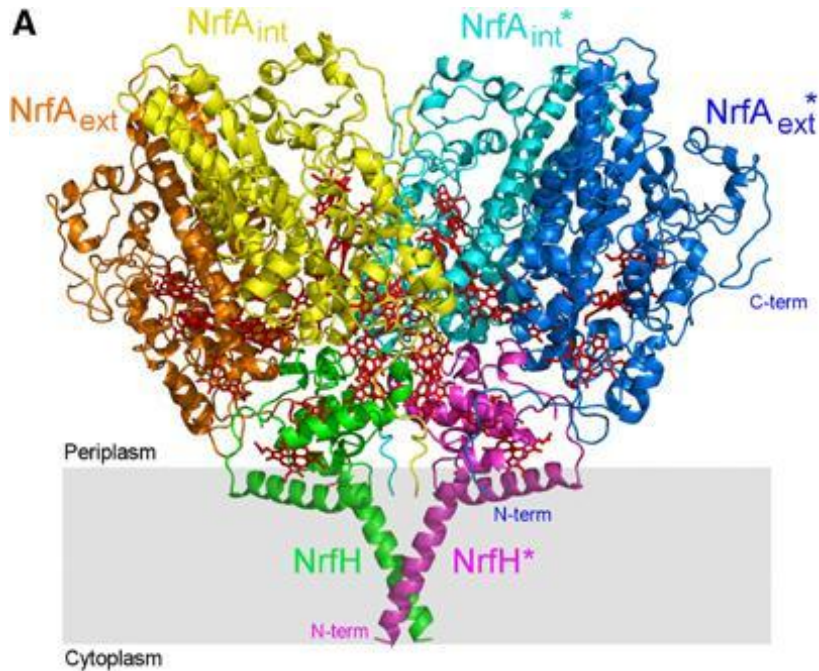
# What do people relate to?



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ITQB NOVA

February 14, 2017 · 🌐

...

No dia dos namorados, relembramos uma das "nossas" moléculas preferidas. Parece mesmo um coração, mas na realidade é um complexo proteico que permite a bactérias que vivem na ausência de oxigênio conseguirem respirar outro tipo de compostos. A estrutura da proteína citocromo c nitrito reductase foi determinada por um grupo de investigadoras do ITQB NOVA em 2006 e publicado na revista EMBO Journal. Mais informações sobre a proteína: <https://tinyurl.com/hryyu74> #valentine #valentinesday #bemyvalentine #science #crystallography #proteins #xray



On Valentine's Day, we remember one of "our" favorite molecules. It really looks like a heart, but it's actually a protein complex that allows bacteria that live in the absence of oxygen to breathe other elements. The structure of cytochrome c nitrite reductase was determined by a group of ITQB NOVA researchers in 2006 and published in EMBO journal. More information on this protein: [link to news on site]

# Practice makes perfect

- European Researchers Night
- Schools
- Institute Open Day
- Exhibitions
  
- Science Communication training
- Social Media

# Suggested reading

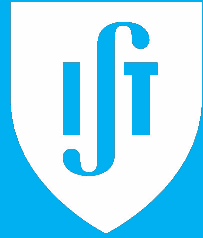
Writing Science: The Story's the Thing, Roberta Ness, 2007, Science. DOI: 10.1126/science.caredit.a0700047  
<https://www.science.org/content/article/writing-science-storys-thing>

How To Tell An Engaging Science Story From Your Research Project, Sarah Wettstadt, 2022, Alan Alda Center for Communicating Science, StonyBrook University  
<https://www.aldacenter.org/thelink/posts/How%20to%20tell%20an%20engaging%20science%20story%20from%20your%20research%20project.php>

Joubert, M., Davis, L. and Metcalfe, J. (2019). Storytelling: the soul of science communication *JCOM* 18(05), E.  
<https://doi.org/10.22323/2.18050501>

Andrade BB. The Art of Storytelling in Science: A Personal Journey. *J Med Educ Curric Dev.* 2025 Feb 3;12:23821205251318188. doi: 10.1177/23821205251318188. PMID: 39906290; PMCID: PMC11792018.

How to tell a compelling story in scientific presentations, Bruce Kirchov, 2021, Nature  
<https://www.nature.com/articles/d41586-021-03603-2>



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