

Thought Starters for Explaining Biological Processes

This document outlines some key challenges of explaining biological processes (i.e., the science of how things work in our bodies) to patients, and provides thought starters to help address them. These thought starters are based on our learnings from building patient communications with patients and cross-disciplinary experts, across disease states.

Other available thought starter topics:

- Data
- Clinical Trials
- Health-related Finances
- Risks and Benefits

For more guidance on how to make your explanations more patient friendly, see the *UPL Rules* and the *UPL Style Guide*.

Resource contents:

- Guidance, standards, and best practices
- Building blocks or assets
- Assessment methods and tools

Applicable to:

- All patient communications
- Specific topics



A Starting Point: This tool contains some early work and may change significantly.

Why is it important for patients to understand biological processes?

Understanding biological processes can help patients:

- Understand what normally happens in the body and how disease affects the body
- Understand the basics behind how different treatments may work
- Have meaningful conversations with their healthcare team about their health, and health-related decisions

What are the key challenges for explaining biological processes?

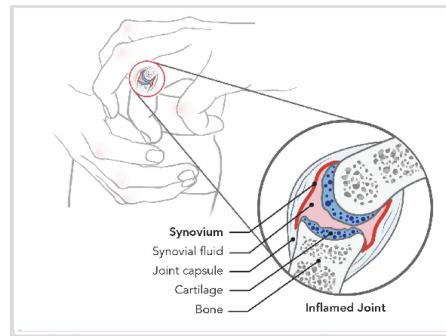
- Keeping the science relevant to patients and relatable to their experiences
- Providing enough detail so that the explanation is informative, but not overwhelming

Thought starters for explaining biological processes

There is no ‘one’ way to explain any given topic. Explanations are uniquely built for the specific audience — like patients from a particular disease state or demographic — and the objectives of the communication. These thought starters are meant to help you craft an explanation that works for your audience. The accompanying examples illustrate how these thought starters have been put into practice in existing UPL patient communications.

Help patients connect the science to their body.

Biological processes often involve cells and other things that can’t easily be seen. Anatomical illustrations situate the details in an environment that patients can recognize and relate to. Thoroughly labeled illustrations also equip patients with the terminology they can use in future conversations.



This example situates the reader by contextualizing where the less familiar process is happening.

Help patients understand how things normally work.

It is difficult to understand the significance of what is happening because of a disease or treatment without knowing how things normally work. Explaining the regular physiology provides a foundation for understanding how a treatment or disease relates to a process.

T Cells

T cells are a type of white blood cell, and are part of your immune system.

T cells are normally activated when they find a sign of a foreign invader. When this happens, they send signals to wake up other parts of your immune system to deal with the foreign invaders.



This example shows how T cells normally work, which helps patients appreciate the role of T cells in fighting diseases and why they are targeted by potential treatments.

Draw parallels to commonly understood concepts to explain unfamiliar ideas.

The full explanation of how molecules and cells work can get very convoluted and jargon-heavy. Using analogies can effectively communicate the gist of how things work, without getting into details that can be confusing or overwhelming.

Activated T cells send signals to the other inflammatory cells of the immune system, calling them into action.



The wifi signals in this example communicate the idea that cells talk to one another without the distraction of unfamiliar terminology.

Distill the story down to the essentials.

Biological processes can be very complicated and it's important not to overload patients with too much information. Focusing on the key steps and characters of a process streamlines the story, and helps patients understand the science without becoming overwhelmed. A clear, step-by-step explanation lets patients consider each piece of information and how they relate to one another.

T cells play a key role in your immune system, and are particularly important in the chain of events that are believed to lead to the inflammation in RA.

In RA, your immune system confuses some of your own cells as foreign invaders, and T cells may be mistakenly **activated**.

Activated T cells send **signals** to the other inflammatory cells of the immune system, calling them into action.

These other inflammatory cells send out **signals** of their own. These **signals** are thought to be linked to inflammation in RA.



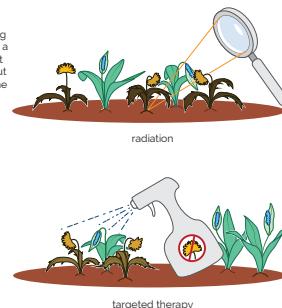
Omitting the names of the characters other than the T cell shifts the focus from trying to decipher jargon to learning about the relationship between T cells and the disease, and how the drug fits in.

Facilitate comparisons and layered learning.

Using the same context to explain or compare multiple, related biological processes provides patients with a consistent point of reference. Consistent context can help highlight any differences in details pertinent for making comparisons or building understanding.

Radiation is like increasing the power of the sun with a magnifying glass to target and dry the weeds out, but in the process, some of the good plants can also be damaged.

With **targeted therapy**, weeds are directly sprayed with weed killer. Good plants may still be damaged.



This example facilitates comparison by drawing out the key differences against a consistent backdrop of the garden analogy.

Patient Experience

We are determined to ensure the **voice of our patients** is continuously present - to both inform and inspire - in ways that **help teams across all business units** achieve their goals, meet the needs of our customers, and provide a positive **patient experience**.

bridgeable

The UPL and its applications were created with the support of Bridgeable, a service design firm based in Toronto, Canada. Bridgeable has worked with BMS on all elements of the UPL, from overall strategy to creating and applying design capabilities and UPL tools, training BMS employees in UPL, and designing UPL.org. The team includes design strategists, interaction designers, and service designers, plus a team of biomedical communicators who specialize in visually communicating science and medicine.

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NO-US-2400123