



## Disruptive innovations in biotechnology made easy

Is it a movie? Yes

Is it a science course? Yes

Is it a language course? Yes

Is it a dictionary? Yes

Does it ask questions? Yes

Is it a cheat-sheet? Yes

Is it complicated? No, it's an antidote to unnecessary complexity

Biotech 12-pack is a digital assistant that helps you become proactive in any expert-level discussion or project that explore the fundamentals of tomorrow's precision medicine.

### If you are...

A professional involved in drug development

An investor in healthcare and biotech

A patient advocate

A university student interested in life sciences

Serious about understanding science

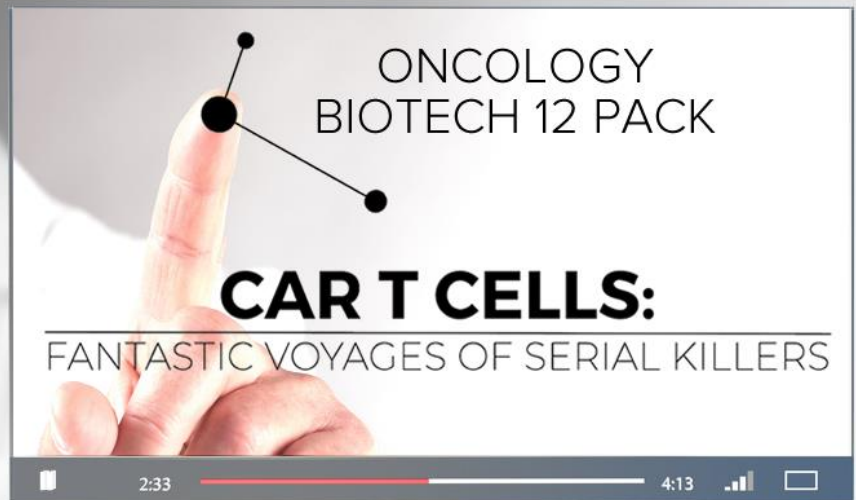
### Subscription rates

1 module: 59 CHF / 49 €

12-pack: 590 CHF / 490 €

Biotech 12-pack is your better learning companion

To subscribe [www.loroch.ch/biotech12packs](http://www.loroch.ch/biotech12packs)



## The first Biotech 12-Pack: disruptive Innovations in Oncology

### Topics

- CAR T cell therapies
- Checkpoint inhibitors
- Inflammation: the good, the bad and the ugly
- Early and late hallmarks of cancer
- Making sense of the cancer genome
- CRISPR and other gene editing tools
- Tumor microenvironments
- Cancer stem cells
- Liquid biopsies and early diagnostics
- Cancer vaccines
- Oncolytic viruses and gene therapies
- Cancer epigenetics and epigenomics

### Target Audience

- All professionals working in cancer drug development
- All biomedical professionals in need of continuing medical education
- Investors and other enablers of oncology drug pipelines
- Regulatory affairs professionals
- Cancer caregivers that are not oncologists
- Patient advocates
- University students interested in life sciences
- Anyone with an interest in cancer therapies

## CAR T cells: Fantastic Voyages of Serial Killers

The first module covers the scientific foundations needed to understand how Chimeric Antigen Receptor (CAR) T cells are engineered, their mechanism of action, the main challenges associated with CAR T cell therapies and the promises they hold for tomorrow's curative medicine.

You will learn about:

- immunological cytotoxicity
- the main classes of cytotoxic immune system cells
- the notion of cancer immunosurveillance
- MHC 1, T-cell receptors and T-cell cytotoxicity
- how CAR T cells are engineered
- how CAR T cell therapy is administered
- what side effects it may have and how are these side effects managed
- what are the limitations of current CAR T cell therapies
- what the future CAR T cell therapies may be like



**Antigen**

Self antigen    Non self-antigen

Neo-antigen    Antigen peptide

MHC    MHC 1    MHC 2

Antigen presenting cell (APC)

**Antigen**

A **molecule** that is capable of eliciting an **immune response**.

2:33    4:13

## Biotech Toolboxes: the Esperanto of life sciences

A Biotech Twelve pack is more than just a series of video lectures. It also has a first-in-class resource: Biotech Toolboxes.

Biotech Toolboxes include the vocabulary and the conceptual understanding needed to become proactive in any relevant project or discussion.

Each Biotech toolbox explores an essential science concept using a variety of complementary tools:



**Use the right words:** concise definition, synonyms, antonyms and confusing terms.



**See it:** video clips, images or graphs for relevant visual learning



**Why is it important:** how different stakeholders value the same scientific facts



**Key questions:** a filter against unnecessary complexity to focus on what really matters



**Important unknowns:** a resource that promotes more insightful interactions with experts



**What's in the future:** relevant innovations that may become the pillars of precision medicine



**References and links:** additional resources to deepen one's understanding



**Quiz:** the most pertinent questions to rapidly test your understanding of the key concepts



**Have fun and remember:** analogies, metaphors or anecdotes for sustainable learning

## Biotech 12-Packs: how does it work?

Biotech 12-Packs are created and published much like a scientific magazine.

As a subscriber, you will receive new modules on a regular basis, once every three to four weeks.

Each module contains a set of short video lectures (averaging 5 minutes) and community resources: a discussion forum, a journal for taking notes that can be shared, announcements, reference materials and short quizzes to test your knowledge.

With each new module comes a set of Biotech toolboxes that introduce relevant key terms, essential for mastering the common territory of all biotechnology. These terms constitute a growing Biotech Toolboxes Encyclopedia, a framework for the creation of shareable life sciences knowledge for all stakeholders in healthcare.

As a subscriber you will get unlimited access to the content of all Biotech Toolboxes that are part of your Biotech 12-Pack subscription. Content will be updated regularly, with a growing community of expert contributors.

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### About iversity

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Additional information: [iversity.org](http://iversity.org).

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### About LOROCH Communication & Training in Life Sciences

LOROCH Communication & Training in Life Sciences specializes in rapid, transdisciplinary education in life sciences. The Biotech 12 Pack concept is leveraging on a unique, twelve-year long experience helping thousands of busy professionals rapidly learn the essentials of biology, biotechnology and pharmaceutical sciences. Dr. Vanya Loroach is a US-trained molecular biologist with over 25 years of experience in biomedical communication and life science education.

Additional information: [www.loroch.ch](http://www.loroch.ch)