



jove

JoVE Videos for Research and Education



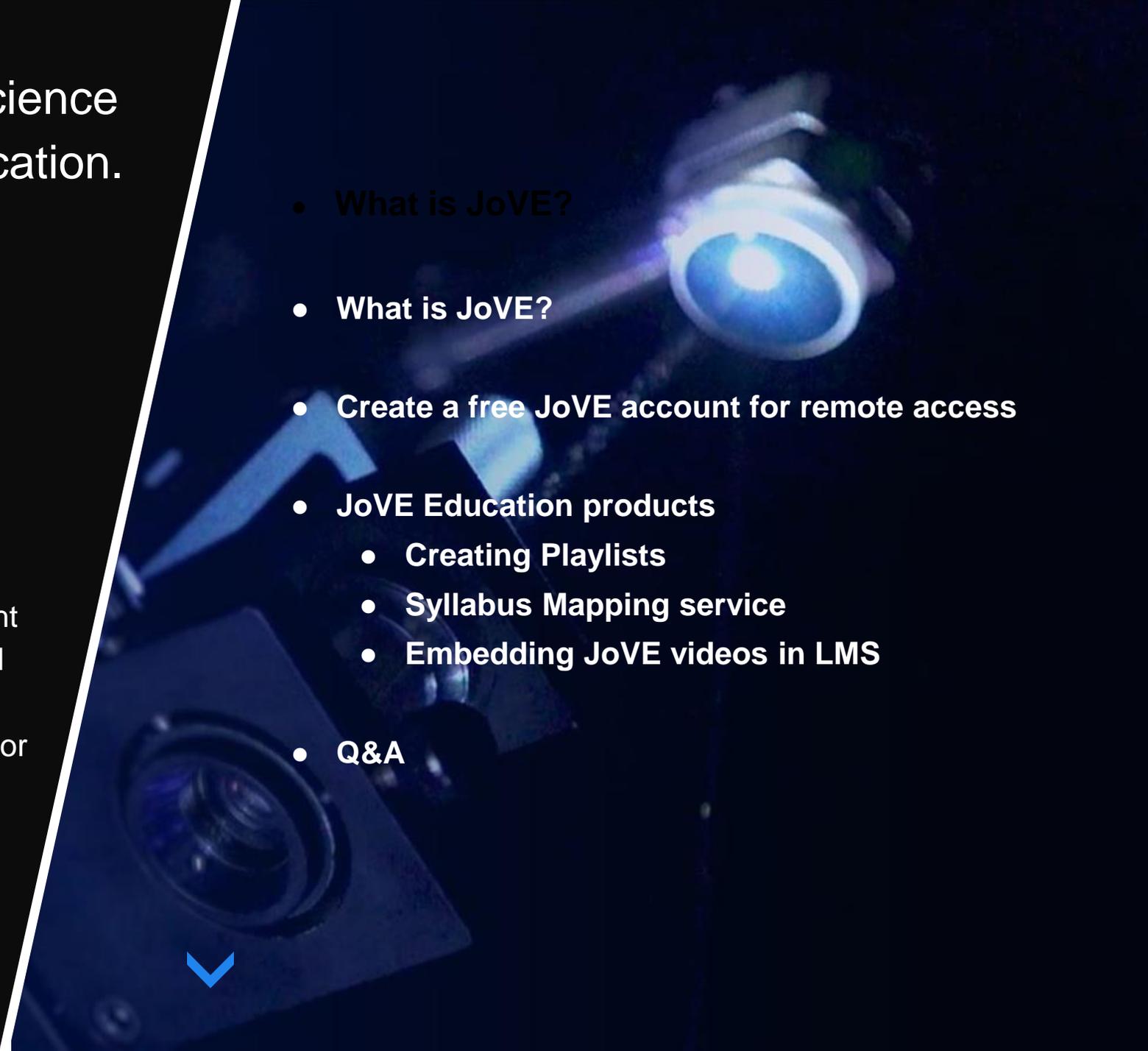
Accelerate your science research and education.

Introduction:



Dr Maaïke Pols, Scientific Advisor

Maaïke obtained a PhD in Cell Biology from Utrecht University where she was involved in teaching and research. She did a post doc at the University of Queensland and then moved to London as an editor for F1000Research before joining JoVE in 2017
maaike.pols@jove.com

- 
- A dark, artistic photograph of a microscope with a bright blue light source, serving as a background for the right side of the slide.
- **What is JoVE?**
 - **What is JoVE?**
 - **Create a free JoVE account for remote access**
 - **JoVE Education products**
 - **Creating Playlists**
 - **Syllabus Mapping service**
 - **Embedding JoVE videos in LMS**
 - **Q&A**





creates scientific videos
that make **Teaching,**
Learning, and
Practicing Science
more efficient, effective,
and engaging.



CEO Moshe Pritsker, Ph.D.
in 2006 at Princeton
University

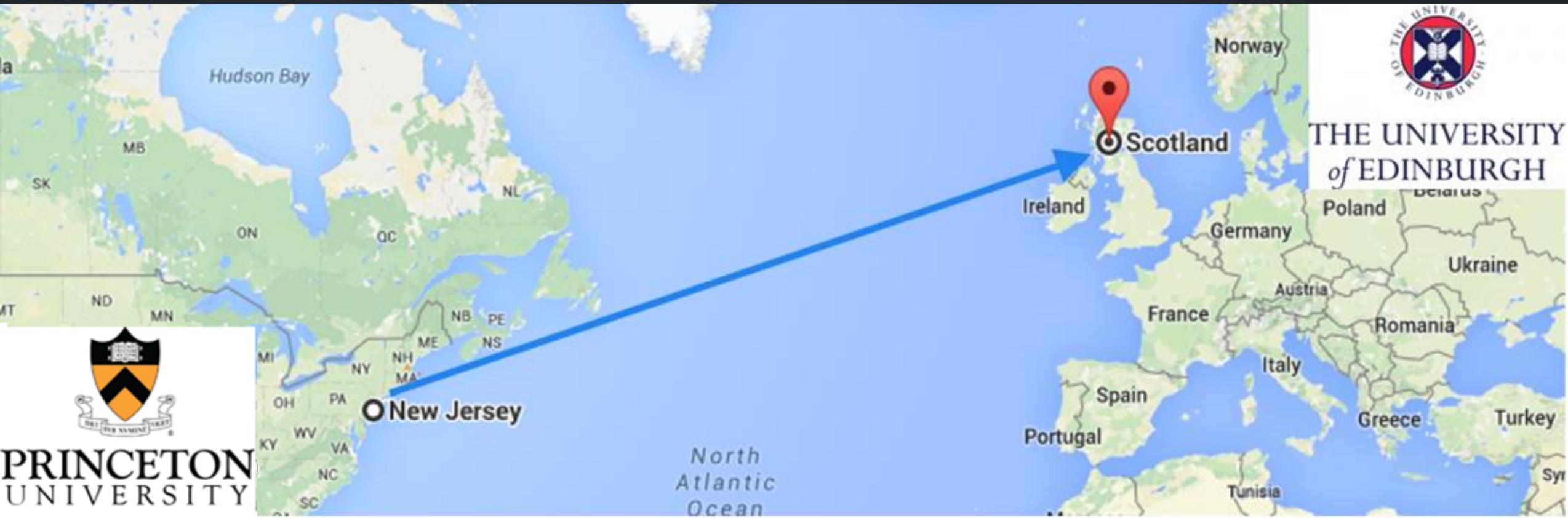
As a young researcher,
Moshe was unable to
complete a crucial
experiment using text
protocols.



How Much Did It Cost To Reproduce An Experiment?

2 months of travel and reagents

\$10,000 for 1 experiment

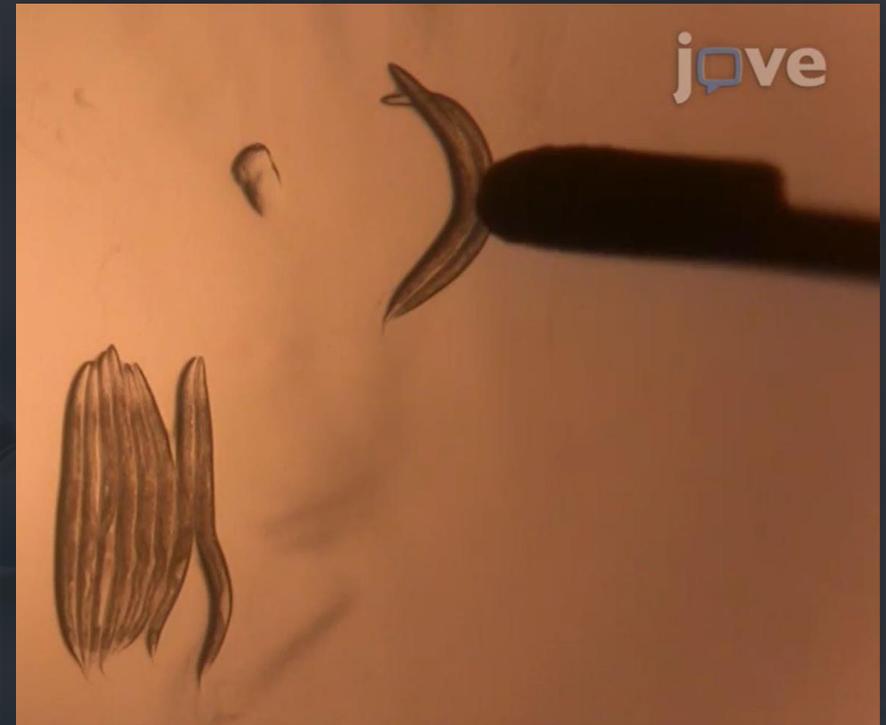


Visualizing > Reading

TEXT ARTICLE

“Once sodium azide has evaporated, line up animals to desired imaging setup. Move the animals side by side with anterior and posterior sides in the same orientation for all animals. Image animals immediately.”

REAL LIFE



Video Library

- **13,000+** videos in a growing library
- **1,200+** new videos published per year
- **1,000+** subscribers
- **8+ million** users worldwide

Video Features

- **24/7** access worldwide
- **10+** languages in translations and voice-overs
- **10,000+** downloadable protocols

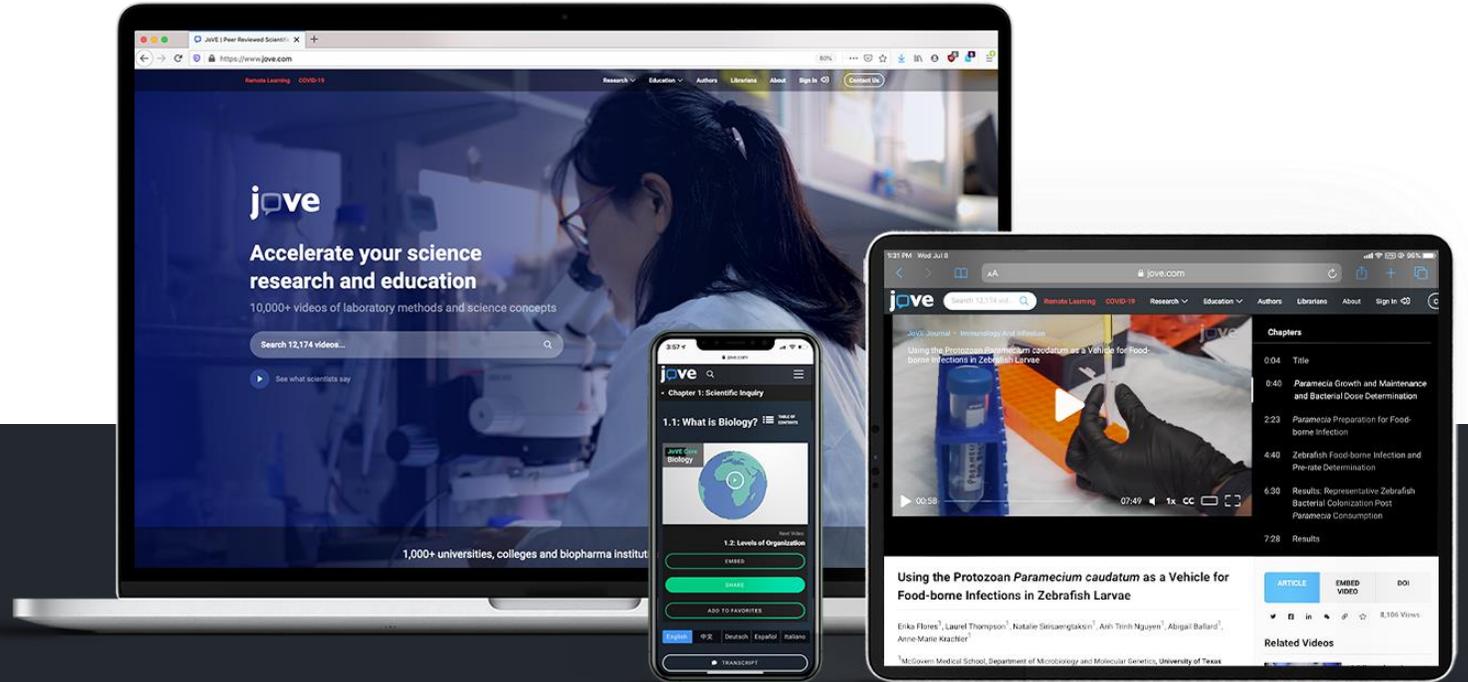
Accessing JoVE Videos

On Campus:

- ✓ IP Recognition; videos within subscription play instantly

Off Campus:

- ✓ Domain authentication
- ✓ OpenAthens and Shibboleth
- ✓ Authenticated remote access with EZProxy
- ✓ Embedded in your LMS (learning management system)



Accessing JoVE Videos Through a JoVE Account

On and Off Campus:

- ✓ Create a free JoVE account with an institutional email address to:

The image shows two overlapping screenshots of the JoVE website. The top screenshot is the 'Sign In' page, which has a dark purple navigation bar with links for 'Research', 'Education', 'Authors', 'Librarians', 'About', 'Sign In' (circled in orange), and 'Contact Us'. The 'Sign In' form includes fields for 'Institutional Email' and 'Password', a 'Forgot Password?' link, and a blue 'Sign In' button (circled in orange). Below the 'Sign In' button is a link for 'Or Create an Account' (circled in orange). The bottom screenshot is the 'Create Your Account' page, which has a white background and a dark purple header. It includes a 'Create Your Account' title, a subtitle 'All your science content in one place', an 'Institutional Email Address' field, a captcha image with the text 'A9BB44' and 'JoVE', and a 'Create Account' button (circled in orange). There is also a link for 'Or Sign In'.

Check your JoVE access

Watch videos even when off campus

Create embed codes to share videos with off-campus colleagues

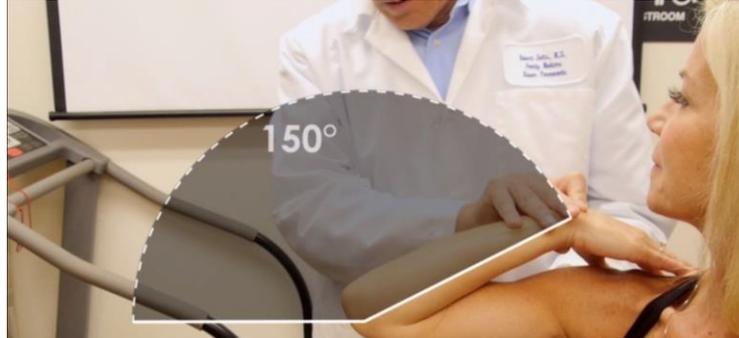
Create a playlist of your favorite videos

WHAT IS JoVE?

JoVE creates scientific videos for five unique resources:



Education



Training



Research

- **JoVE Core**

An animated text book. Foundational concepts are explained through high-impact animations and real-life experimentation.

- **JoVE Lab Manual**

Videos for both instructors and students in introductory biology and chemistry lab courses.

- **JoVE Science Education**

Teaching scientific fundamentals through simple easy-to-understand video demonstrations.

- **JoVE Video Journal**

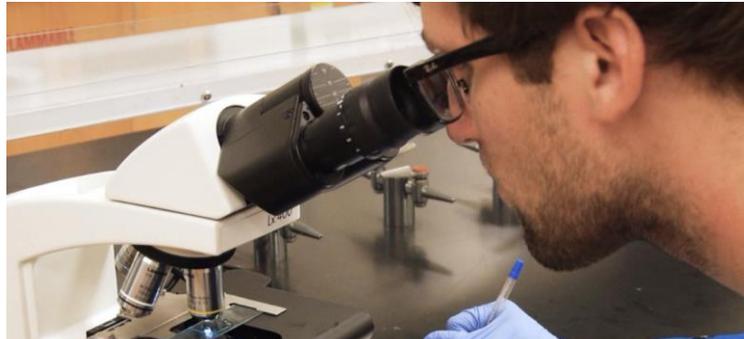
Publishes experimental techniques in visual format with detailed text protocols to increase scientific reproducibility and productivity.

- **JoVE Encyclopedia**

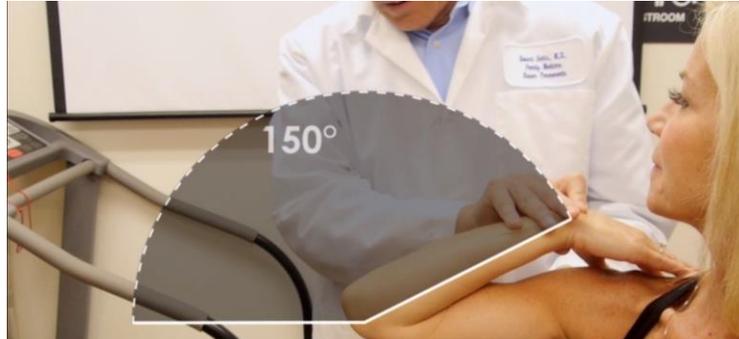
Collections of experimental techniques for specific model organisms

Your JoVE Access

JoVE creates scientific videos for five unique resources:



Education



Training



Research

- **JoVE Core**

Biology, Chemistry, Social Psychology, Molecular Biology

- **JoVE Lab Manual**

Biology and Chemistry.

- **JoVE Science Education**

Basic- and Advanced Biology, Chemistry, Physics, Psychology, Environmental Sciences, Engineering and Clinical Skills

- **JoVE Video Journal (unsubscribed)**

Biology, Bioengineering, Engineering, Chemistry, Biochemistry, Cancer Research, Developmental Biology, Environment, Behavior, Genetics, Immunology&Infection, Medicine and Neuroscience

- **JoVE Encyclopedia**

Collections of experimental techniques for specific model organisms and disease models

JoVE Core

Video textbooks that can serve as effective primary or supplementary teaching resources.

JoVE Core: Biology

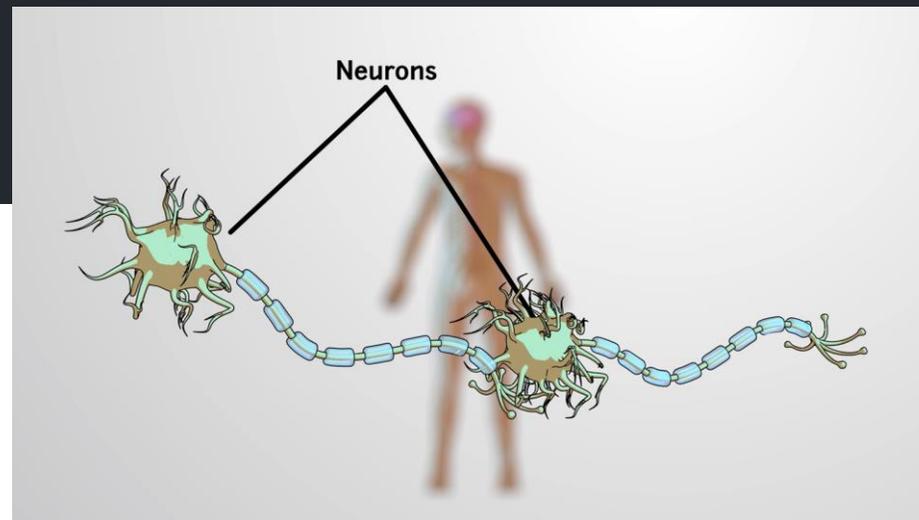
[Available in English, Chinese, German, Spanish, Italian, French, Russian, Dutch and Korean]

JoVE Core: Chemistry

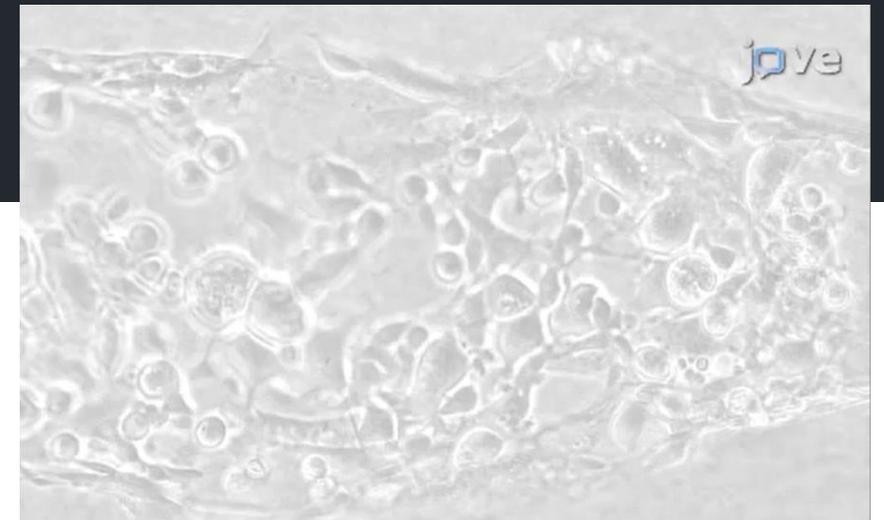
JoVE Core: Molecular Biology

JoVE Core: Social Psychology

Bring key introductory concepts to life through ...



High-impact Animations



Scientist-in-Action Videos of Experiments Conducted In Laboratory Settings

JoVE Core Overview



Search 12,833 video articles...



[Faculty Resource Center](#)

[COVID-19](#)

[Research](#) ▾

[Education](#) ▾

[Authors](#)

[Librarians](#)

[About](#)

[Maaiké Pols](#) ▾

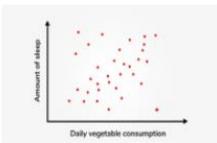
[Contact Us](#)

Social Psychology

Search Videos



JoVE Core Social Psychology brings the foundations of our social world to life. Through 66 concise and easy-to-understand animated video lessons, we explain key concepts in the field. Plus, in another 25 scientist-in-action videos, we demonstrate classical and original research experiments performed in the laboratory.



Chapter 1
Research Methods



Chapter 2
The Social Self



Chapter 3
Social Judgment and Decision-Making



Chapter 4
Understanding and Influencing Others



Chapter 5
Attitudes and Persuasion



Chapter 6
Close Relationships



Chapter 7
Stereotypes, Prejudice, and Discrimination



Chapter 8
Helping and Hurting



Chapter 9
Group Dynamics

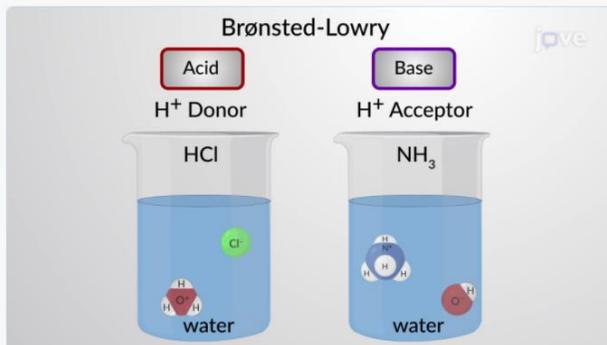
JoVE Core Chapter structure

CHAPTER 15

Acids and Bases

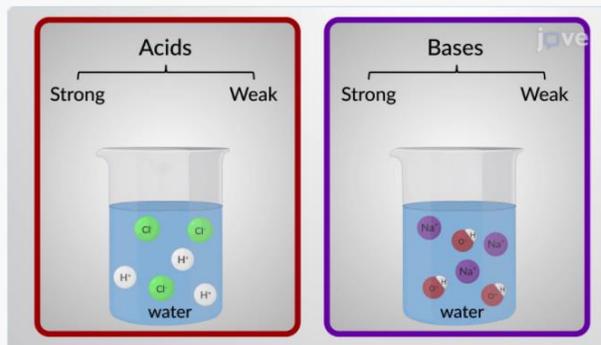
KEY TERMS AND CONCEPTS

SCIENTISTS IN ACTION



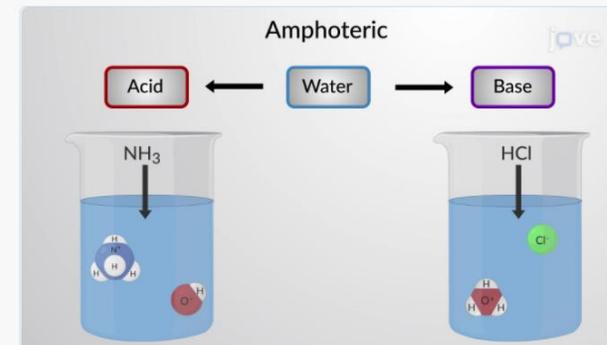
Bronsted-Lowry Acids and Bases

The acid-base reaction class has been studied for quite some time. In 1680, Robert Boyle reported traits of acid solutions that included their...



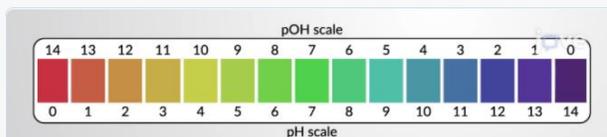
Acid/Base Strengths and Dissociation Constants

The relative strength of an acid or base is the extent to which it ionizes when dissolved in water. If the ionization reaction is essentially...



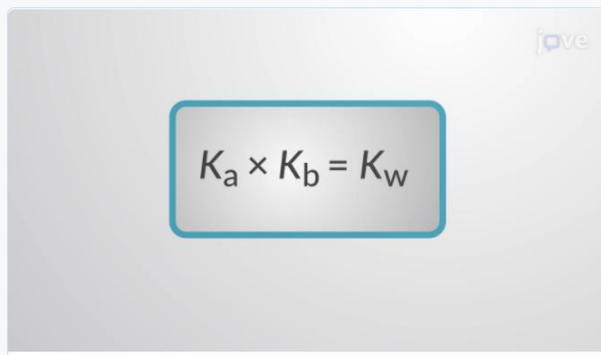
Water: A Bronsted-Lowry Acid and Base

The reaction between a Brønsted-Lowry acid and water is called acid ionization. For example, when hydrogen fluoride dissolves in water and...

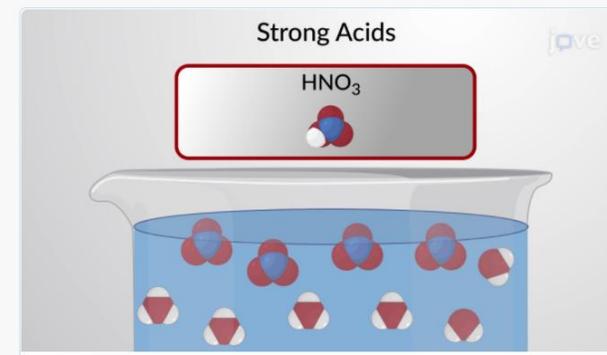


$$\text{pH} = -\log [\text{H}_3\text{O}^+]$$

pH Scale



Relative Strengths of Coniugate Acid-Base Pairs



Strong Acid and Base Solutions

JoVE Core - Helpful Features for Instructors



The screenshot displays the JoVE Core website interface. At the top, there is a search bar with the text "Search 13,064 video articles..." and a navigation menu with links for "Faculty Resource Center", "COVID-19", "Research", "Education", "Authors", "Librarians", "About", and "Eleonora Grinenko". The main content area is titled "13.2: DNA Packaging" and features a video player with a play button. The video player has a "JoVE Core Biology" logo and "Access provided by JoVE" text. Below the video player, there are buttons for "EMBED", "SHARE", and "ADD TO FAVORITES". To the right of the video player, there is a language selection menu with options for English, Español, Français, 中文, Русский, Nederlands, and Deutsch. Below the language menu, there are buttons for "TRANSCRIPT" and "CREATE QUIZ". At the bottom of the page, there is a section titled "13.2: DNA Packaging" with an "Overview" section. The text in the overview section reads: "Eukaryotes have large genomes compared to prokaryotes. In order to fit their genomes into a cell,".

1

Video Transcript

2

Short Animated Video

3

Reading Material

4

Embed, Share, Add to Favorites buttons

5

Create Quiz

JoVE Core - Helpful Features for Students



The screenshot shows the JoVE Core website interface. At the top, there is a search bar with the text "Search 12,463 video articles..." and a navigation menu with links for "Faculty Resource Center", "COVID-19", "Research", "Education", "Authors", "Librarians", "About", and "Eleonora Grinenko". Below the search bar is a video player for a video titled "13.2: DNA Packaging". The video player has a progress bar at 00:09 and a volume icon. A language selection menu is open over the video, showing options for English, Français, Portugais, العربية, עברית, Русский, 中文, Italiano, Español, Nederlands, 日本語, Türkçe, Deutsch, and 한국어. A transcript window is open on the right side of the video player, showing the text: "In eukaryotes, double-stranded DNA is specially organized within a membrane-bound nucleus to accommodate the cell's limited space. At the first level of compaction, DNA is wrapped tightly around specific proteins called histones. A histone core and the DNA wrapped". Below the video player are buttons for "EMBED", "SHARE", and "ADD TO FAVORITES". The video title "13.2: DNA Packaging" is displayed below the player, along with an "Overview" section. The text in the overview section reads: "Eukaryotes have large genomes compared to prokaryotes. In order to fit their genomes into a cell, eukaryotes must pack their DNA tightly inside the nucleus. To do so, DNA is wound around proteins called histones to form nucleosomes, the main unit of DNA packaging. Nucleosomes then coil into compact fibers known as chromatin." The laptop is a MacBook.



Voice-over Translations



Animations Illustrating Key Concepts



Subtitles and Closed Captions



Speed Regulation

JoVE Lab Manual

Curriculum-focused video resources that support teaching and learning of commonly taught introductory labs.

[JoVE Lab Manual:
Biology](#)

[JoVE Lab Manual:
Chemistry](#)

Step-by-step instructions for each lab experiment from 3 perspectives ...



**Instructor
Preparation**

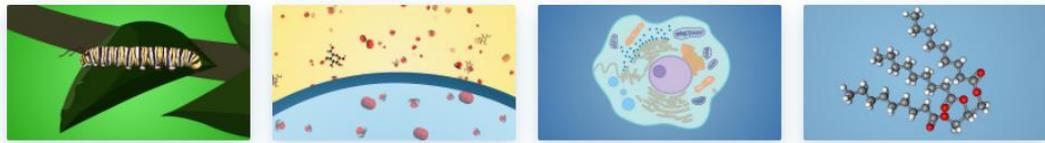


Concepts



**Student
Protocol**

Fundamentals



[Scientific Method](#)
[Diffusion and Osmosis](#)
[Cell Structure](#)
[Macromolecules](#)



[Physiology of the Circulatory System](#)

Genetics



[Genetics of Organisms](#)
[DNA Isolation and Restriction Enzyme Analysis](#)
[Bacterial Transformation](#)

Cellular Processes



[Photosynthesis](#)
[Cellular Respiration](#)
[Cell Division](#)
[Transpiration](#)



[Enzyme Activity](#)

JoVE Lab Manual

Cellular Processes



[Photosynthesis](#)
[Cellular Respiration](#)
[Cell Division](#)



[Enzyme Activity](#)

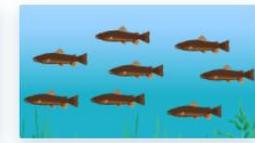
Ecology



[Animal Behavior](#)
[Energy Dynamics](#)
[Measuring Biodiversity](#)
[Extinction](#)



[Species Distribution and Biogeography](#)



[Population Growth](#)



[Community Diversity](#)



[Climate Change](#)



[Group Behavior](#)



[Optimal Foraging](#)



[Sexual Selection and Mate Choice](#)



[Eusociality and Division of Labor](#)

Evolution



[Natural Selection](#)
[Artificial Selection](#)
[Hardy-Weinberg & Genetic Drift](#)
[Evolutionary Relationships](#)



[Plant Diversity](#)



[Animal Diversity](#)



[Microbial and Fungal Diversity](#)

JoVE Lab Manual - Helpful Features for Instructors



The screenshot displays the JoVE website interface. At the top, there is a search bar and navigation links. The main content area features a video player for 'Diffusion and Osmosis' with a cell diagram. Below the video player is a text section titled 'Cell Membranes and Diffusion'. Numbered callouts (1-6) highlight specific features: 1. 'INSTRUCTOR PREP' button; 2. 'TRANSCRIPT' button; 3. Video player; 4. Text content; 5. 'EMBED', 'SHARE', and 'ADD TO FAVORITES' buttons; 6. 'CREATE QUIZ' button.

- 1 Instructor's Preparation and Concepts Videos
- 2 Transcript for Concept Video or Navigation for Preparation Video
- 3 Short Video
- 4 Reading Materials and Downloadable Materials List
- 5 Embed, Share, Add To Favorites Buttons
- 6 Create Quiz

JoVE Lab Manual - Helpful Features for Students



joVE Search 13,064 video articles... Faculty Resource Center COVID-19 Research Education Authors Librarians About Eleonora Grinenko Contact Us

Science Education > Introductory Biology

Diffusion and Osmosis

INSTRUCTOR PREP CONCEPTS STUDENT PROTOCOL

EDUCATION

Diffusion and Osmosis

Surface Area = $6a^2$
 $a = \text{length of sides}$

	Length of side	Surface Area (cm ²)	Volume (cm ³)	Surface Area: Volume
Cell 1	1			
Cell 2	2			
Cell 3	3			

01:10 08:17 1x CC

EMBED SHARE ADD TO FAVORITES

PROCEDURE

PRINT PROCEDURE STEPS

1. Diffusion in Agar

1. NOTE: In this exercise, you will be given agar containing an indicator chemical called phenolphthalein. When phenolphthalein

MacBook

1

Video Navigation

2

Student Protocol Video

3

Animations Illustrating Key Concepts

4

Subtitles And Closed Captions

5

Printed Procedures

JoVE Science Education

500+ videos

easy-to-understand
video demonstrations

key conceptual and methodological details
that are difficult to visualize using text alone

[Advanced Biology](#) [6 collections]

[Basic Biology](#) [6 collections]

[Chemistry](#) [6 collections]

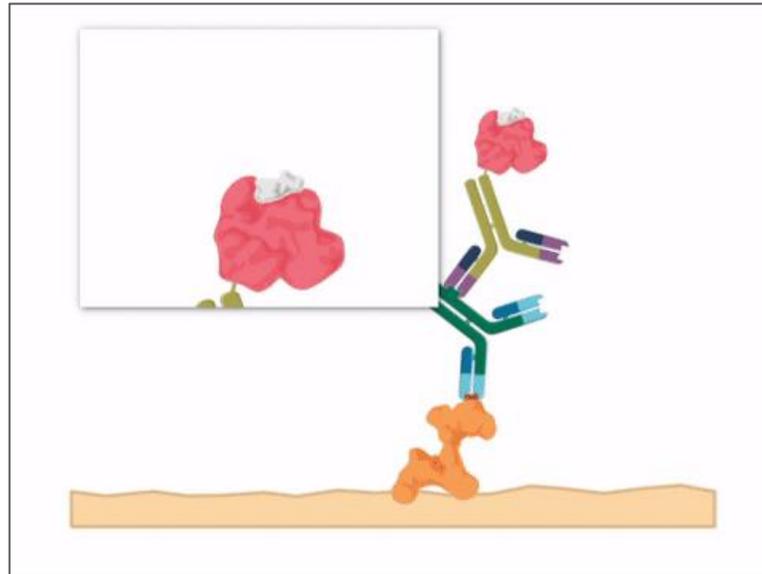
[Clinical Skills](#) [6 collections]

[Engineering](#) [8 collections]

[Environmental Sciences](#) [3 collections]

[Physics](#) [2 collections]

[Psychology](#) [7 collections]



**Basic Biology - The
ELISA Method**



**Advanced Biology - An
Introduction to Neuroanatomy**

JoVE Science Education - Helpful Features for Instructors



joVE Search 12,787 video articles... Faculty Resource Center COVID-19 Research Education Authors Librarians About Maaiké Pols Contact Us

JoVE Science Education Organic Chemistry You have full access to this content through JoVE

English

$k = Ae^{-E_a/RT}$

Chapters Languages

- 0:00 Overview
- 1:17 Principles of Catalysis
- 3:35 Preparation of Materials
- 4:50 Catalytic Reduction of 4-Nitrophenol
- 6:08 Applications
- 8:02 Summary

Interactive Mode

PROTOCOL EMBED VIDEO CREATE QUIZ

USAGE STATISTICS

14,503 Views

Introduction to Catalysis

Transcript Automatic Translation Create Quiz

Catalysts are substances that are added to chemical systems to enable chemical reactions to occur faster, using less energy.

The minimum amount of energy required to initiate a reaction is called the activation energy. Catalysts provide an alternate reaction pathway with a lower activation energy, allowing the reaction to take place under less extreme conditions. The activation energy is described by the Arrhenius equation.

1

Navigation

2

Create Quiz

3

Embed Video

4

Protocol

5

Interactive Mode



JoVE Science Education – NEW Interactive Mode

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Chapters Languages

0:00 Overview
1:17 Principles of Catalysis
3:35 Preparation of Materials
4:50 Catalytic Reduction of 4-Nitrophenol
6:08 Applications
8:02 Summary

Question 1
A catalyst is a substance that...

- ...has lots of energy.
- ...changes color when the reaction is finished.
- ...requires the reaction to be run at low temperatures.
- ...decreases the amount of energy needed to perform a reaction.

Introduction to Catalysis

Transcript Automatic Translation Create Quiz

Catalysts are substances that are added to chemical systems to enable chemical reactions to occur faster, using less energy.

The minimum amount of energy required to initiate a reaction is called the activation energy. Catalysts provide an alternate reaction pathway with a lower activation energy, allowing the reaction to take place under less extreme conditions. The activation energy is described by the Arrhenius equation.

Interactive Mode

PROTOCOL EMBED VIDEO CREATE QUIZ

USAGE STATISTICS

Twitter Facebook LinkedIn WhatsApp Link Star 14,503 Views

MacBook

Interactive Mode pauses the video at intervals to ask a multiple choice question

Interactive mode videos can be embedded into a course LMS

JoVE Science Education - Helpful Features for Students



The screenshot displays the JoVE Science Education website interface on a laptop. The main content area features a video player with a heart diagram and a table of contents. The video player includes a progress bar and a speed control set to 1x. The table of contents lists the following chapters:

- 0:00 Overview
- 0:51 Etiology and Diagnosis of Cardiac Tamponade
- 3:00 Pericardiocentesis Procedure under EKG guidance
- 8:11 Summary

The video player also has a language selection menu with options: English, Français, Português, العربية, Italiano, Русский, 中文, 日本語, Español, Deutsch, 한국어, and Türkçe. The transcript below the video reads: "Pericardiocentesis" and "Pericardiocentesis - the aspiration of fluid from the space between the heart and pericardium - is a potentially lifesaving procedure performed to relieve cardiac tamponade. Cardiac tamponade occurs when fluid collects rapidly in the pericardial space, causing a dramatic increase in pressure inside this space. If untreated, the fluid accumulation will lead to cardiac arrest."

At the bottom of the interface, there are buttons for "PROTOCOL", "EMBED VIDEO", and "CREATE QUIZ", along with social media sharing icons and a view count of 11,610 Views.

- 1 Speed Regulation
- 2 Subtitles and Closed Captions
- 3 Video Transcript
- 4 Navigation
- 5 Protocol



Benefits of Using Videos in Instruction

Accessibility

- Available 24/7
- Subtitles and voice overs in up to 14 languages
- Keyboard-only controls

Student Preparedness

- Increased learning efficiency
- Decreased faculty intervention

Knowledge Retention

- Comprehension tested via available quizzes
- Remediation tool for at-risk students

Student Engagement

- Improves learning outcomes
- Engages students at different levels

Immediately Enhance STEM Understanding

A study conducted at DeSales University and Clemson University with undergraduate students shows:

2X BETTER

Students who watched a JoVE video before a lab class performed up to **two times better** than those who read only traditional text handouts

100% HIGHER

JoVE video watchers **scored 100% higher** on the pre-lab test and 76% higher on the post-lab test

EVEN 5 MINUTES MATTER

Watching a video for as little as 5 minutes had a **significant and lasting impact**

Living Library

More Content Coming Soon

- Continuous **JoVE Journal** article releases across 13 disciplines
- **JoVE Encyclopedia of Experiments**: Cancer Research | Neuroscience
- **JoVE Core**: Organic Chemistry | Physics



JoVE Playlists

Streamline Teaching

✓ Share

playlists with others, including students, faculty, researchers and lab staff.

✓ Locate

the videos saved in a playlist quickly and easily, whenever needed.

Train Lab Members

✓ Customize

them to meet specific instruction or lab training needs.

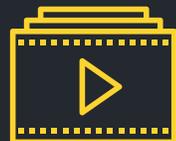
✓ Engage

students by creating engaging class assignments or training programs

Accelerate Research



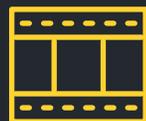
Creating a JoVE Playlist



Create your very own JoVE playlists. Here are [instructions](#) and a quick [1 minute video](#) on how to create playlists



[Request a playlist](#) from our Customer Success Team or your Account Manager



[Browse available syllabus-mapped playlists:](#)
JoVE-curated playlists of videos mapped to course syllabi, lab training programs, and more.

Creating a JoVE Playlist

Log into your JoVE account



Navigate to My Playlists on your account page



Click on Create a New Playlist



Creating a JoVE Playlist

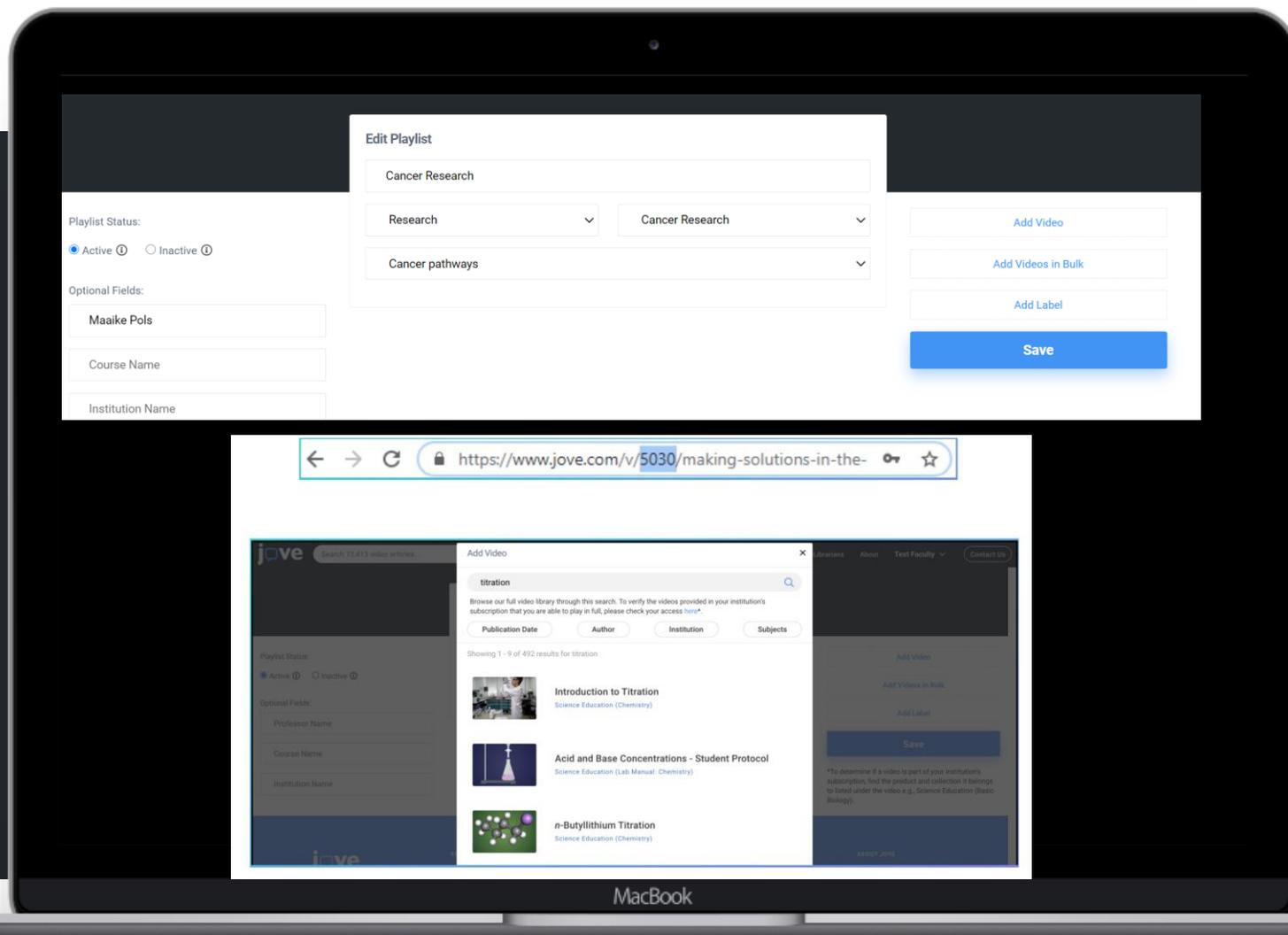
Name your Playlist and give it a purpose, topic and specialty



Find relevant articles for your research and add them to your playlist via “add video” or “add videos in bulk” using the article ID’s found in the url



or “add videos in bulk” using the article ID’s; a string of 4-5 numbers found in the url



Creating a JoVE Playlist

Use labels to organize videos into sections within your playlist



When relevant add a professor, course and institute name and click “Save” when your playlist is finished



Your playlist now appears in the My Playlists section of your account. Share your playlist with peers using the “Copy url” button. You can clone or edit your playlist at any time

The screenshot displays the JoVE website's playlist creation interface. At the top, the JoVE logo and a search bar are visible. The page title is "Stoichiometry". The playlist status is set to "Active". Under "Optional Fields", there are input boxes for "Professor Name", "Course Name", and "Institution Name". A list of videos is shown, each with a thumbnail and a title: "Determining the Empirical Formula", "Using a pH Meter", "Solutions and Concentrations", "Introduction to Titration", and "Introduction to Catalysis". A red box highlights the "Chemical Bonding" section. On the right side, there are buttons for "Add Video", "Add Videos in Bulk", "Add Label", and "Save". A note at the bottom right states: "*To determine if a video is part of your institution's subscription, find the product and collection it belongs to listed under the video e.g., Science Education (Basic Biology)."

Faculty Resource Center

Videos mapped to your courses and teaching labs

Don't see the course you teach here? Contact our [Customer Success](#) team to request a free syllabus mapping of JoVE videos to your course.

- [Biology](#)
- [Chemistry](#)
- [Lab Courses](#)
- [Clinical Medicine](#)
- [Engineering](#)
- [Psychology](#)
- [Neuroscience](#)
- [Environmental Sciences](#)
- [K-12](#)
- [Research Labs](#)
- [Textbook Mapping](#)
- [Featured Playlists](#)

Integration of JoVE videos into online courses and your LMS

[Browse](#)

Guides for teaching remotely with JoVE videos

[Browse](#)

Weekly training webinars

Join one of our weekly webinars to learn how JoVE can support your science instruction; learn how to access JoVE content seamlessly, integrate videos into your courses or labs, and keep students engaged.

[Wednesdays](#) [Thursdays](#)

09:30 GMT	09:30 EST
15:00 IST	14:30 GMT
18:30 JST	15:30 CET

[Register](#)

Faculty Resource Center

Syllabus and Training Program Mapping

Save time on creating class curricula,
building lesson plans or establishing
laboratory training programs

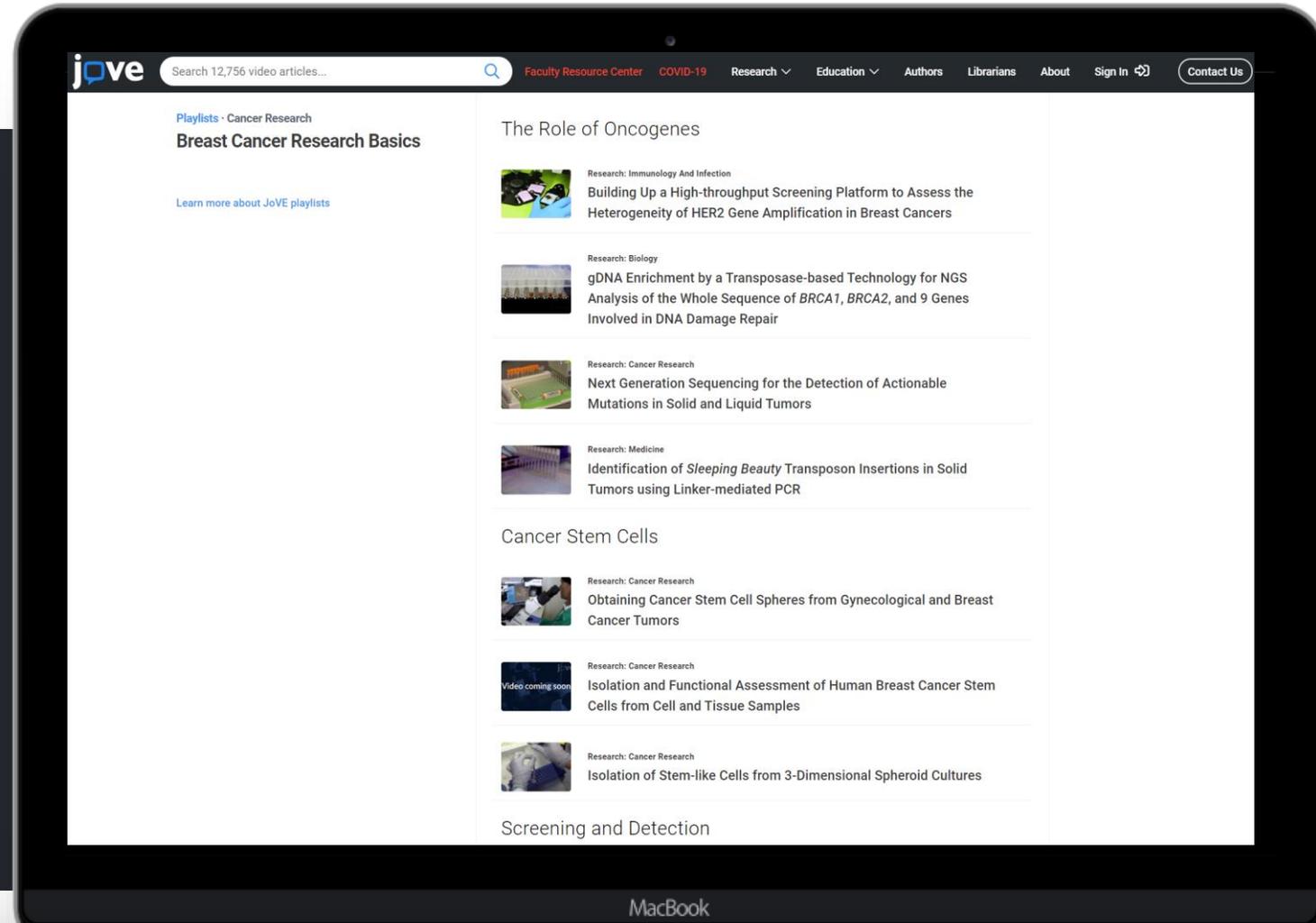


JoVE's subject matter experts will map
best fit content to your syllabus or training
program



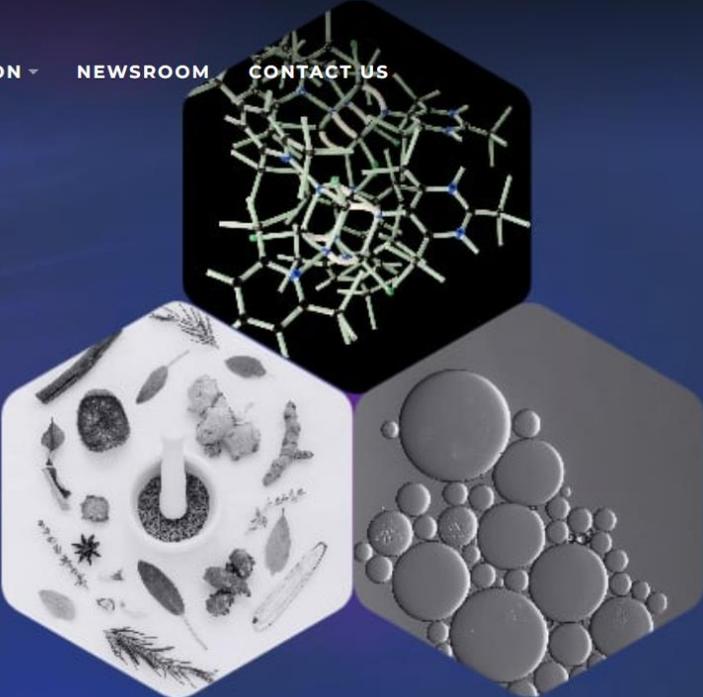
Receive a clickable list of suggestions for
content that best support your needs

Email manprit.kaur@jove.com



Getting Started with JoVE

Journal of Visualized Experiments



In an effort to support [remote instruction](#), UCF has renewed a one-year instructional subscription to JoVE Science Education for the 2021-2022 academic year.

- Videos covering research methods, lab manuals, clinical skills, and similar topics in STEM fields.
- Over 12,000 videos in disciplines such as biology, chemistry, engineering, medicine, physics, and psychology.
- Brief video demonstrations of labs and experiments to teach core scientific concepts.
- JoVE videos that can be viewed on their site or embedded into learning management systems

WEBCOURSES@UCF INTEGRATION

JoVE content can be easily integrated into your Webcourses@UCF course in multiple ways by:

- Embedding content directly onto a Canvas page.
- Implementing JoVE curated curriculum in a common cartridge file or QTI file that can be imported into your Webcourses@UCF course.
- Linking content directly into a module through the JoVE External Tool.

Embedding a Video on a Page

When embedding content from JoVE into your Webcourses@UCF course, you will first want to create an account with JoVE if you have not already done so. (If you need to create an account, please refer to the steps in the above **Accessing JoVE** section.)

Once you are logged into JoVE with your personal JoVE account, you can then retrieve the embed code of the video(s) you would like to add into your Webcourses@UCF course. For assistance on how to add a JoVE embed code onto your Canvas page, refer to this video tutorial.

<https://youtu.be/qVv4BIJSnjg>

Once you have the embed code, you can also refer to this Canvas Guide Canvas Guide on how to embed a video onto a Page: [How do I embed a video in a page in a course?](#).

If you have multiple videos that you would like to have embedded into your course, you can also contact JoVE's [Customer Success](#) team and they will be able to provide you with a list of all of the embed codes of the videos you are requesting.

Importing Files into your Webcourses@UCF Course

If you work with JoVE to curate curriculum content specifically for your course, they may provide you the content through a Common Cartridge file.

You can refer to this [Canvas Guide on how to import Common](#)

CANVAS
FREE FOR TEACHERS

Account

Dashboard

Courses

Calendar

Inbox

Commons

Help

- Home
- Announcements
- Assignments
- Discussions
- Grades
- People
- Pages**
- Files
- Syllabus
- Outcomes
- Quizzes
- Modules
- Conferences
- Collaborations
- Attendance
- Settings

JoVE Videos

0:42 / 1:20

Free Weekly Training sessions; Thursdays 9.30AM EST

Free Syllabus Mapping Service; Receive a clickable playlist of JoVE videos relevant to you and your research/courses

Customer success support faculty with embedding videos and quizzes

For more information about faculty support email maprit.kaur@jove.com

For sales related enquiries email [Trevor Schuck](mailto:Trevor.Schuck@jove.com)
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Questions?