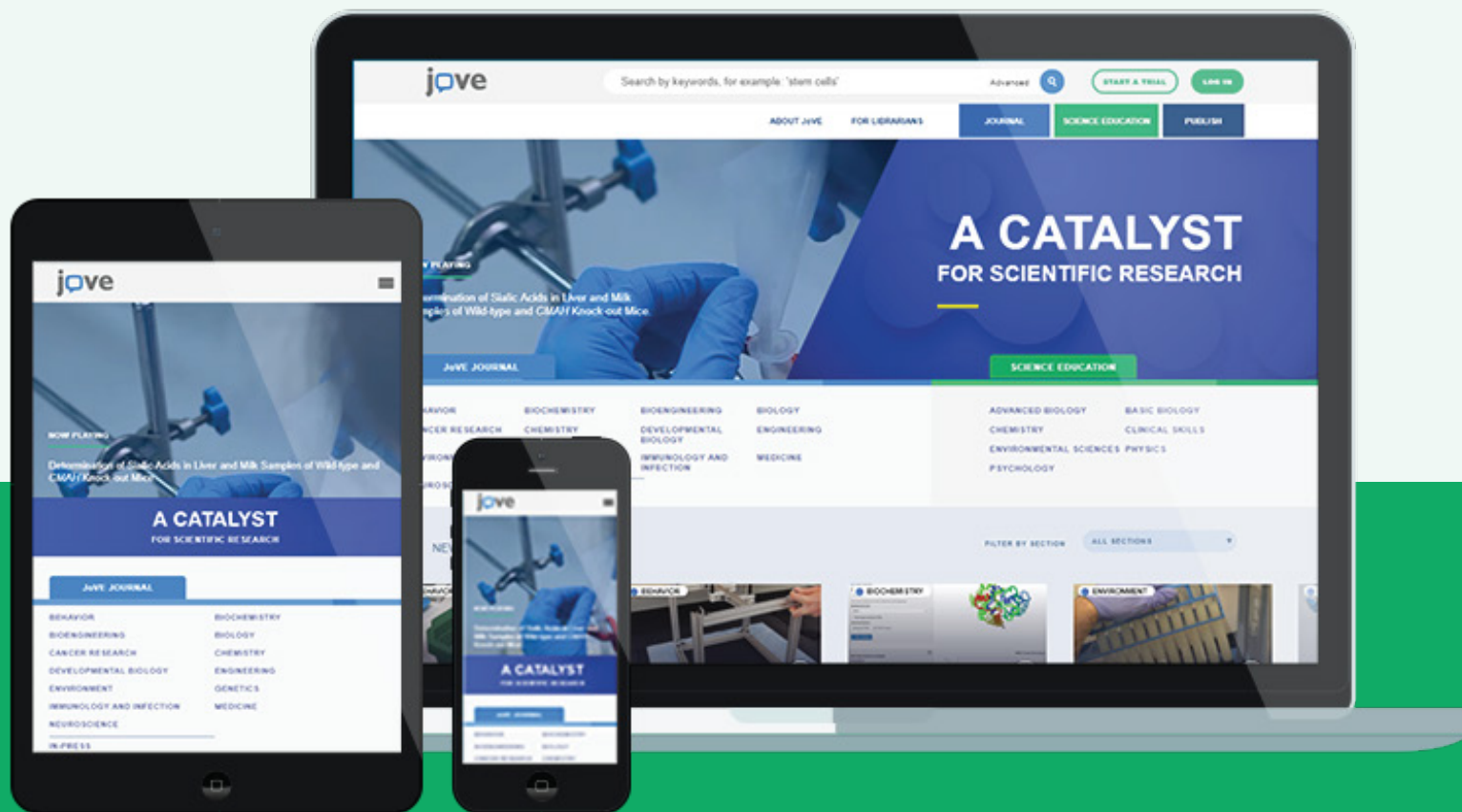




JoVE 科教视频库 用户指南

2017年9月修订版



JoVE科教视频库专门为教学设计，涉及生物学、医学、化学、心理学、物理学、工程学等多个分支及交叉学科领域，旨在通过简单易懂的视频展现基础实验教学。

目前包含8大学科系列，由多个子集组成，每个子集平均收录15个教学视频。

-  基础生物学
-  高级生物学
-  临床技巧
-  化学
-  心理学
-  环境科学
-  物理学
-  工程学

*学科子集完整列表请参见
<https://www.jove.com/science-education-library>

LIBRARY FACTS

8大学科系列 ✓

38个子集 ✓

570个科教视频 ✓

实验概念、原理的动画呈现 ✓

实验方法、技术的动态演示 ✓

详细的文本实验指南 ✓

与全球顶尖大学的
科研人员合作录制 ✓

快速搜索与浏览

1 快速搜索

在主搜索栏中输入英文关键词进行搜索，直接访问JoVE科研视频资源。

1b 高级搜索

通过点击搜索栏中的“Advanced”一词，优化关键词进行搜索和/或添加作者、机构、日期或者专辑筛选项。

2 视频期刊访问权限

查看在您所在机构的IP范围内，或者当您登陆账户时能够访问的视频期刊专辑。

3 科教视频库访问权限

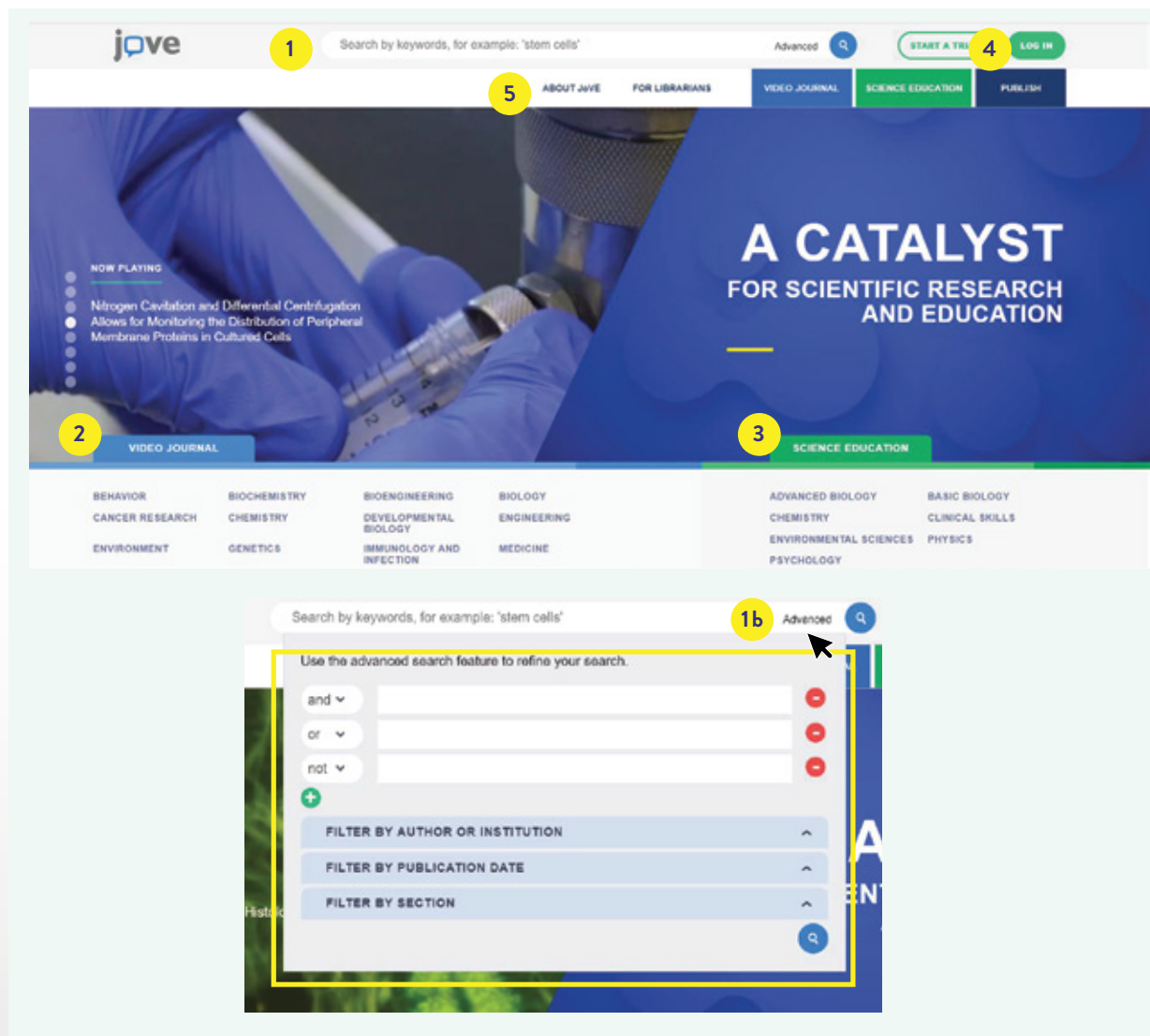
查看在您所在机构的IP范围内，或者当您登陆账户时能够访问的科教视频系列。

4 账户登陆

使用您的机构电子邮箱地址登陆账户并获取附加特色功能。

5 导航栏

浏览我们的网站以获得更多关于JoVE的信息——包括有关如何在教学中更好地利用JoVE科教视频资源的实用指南。



科教视频库结构：索引页

科教视频库分为8大学科系列，每个系列包括特定学科专题的视频子集。

1 访问

查看在您所在机构的IP范围内，或者当您登录账户时能够访问的科教视频系列。

2 系列

系列展示在左侧。点击进入系列查看更多关于其学科专题构成和所包含子集的信息。

3 子集

点击此处访问特定子集所包含的15个科教视频。

The screenshot shows the JoVE Science Education website interface. At the top, there is a search bar with the text "Search by keywords, for example, 'stem cells'", a search icon, and buttons for "START A TRIAL" and "LOG IN". Below the search bar are navigation links: "ABOUT JOVE", "FOR LIBRARIANS", "WEB 1.0 JOURNAL", "SCIENCE EDUCATION", and "PUBLISH". The main header features a large image of a person wearing safety goggles and holding a pipette, with the text "SCIENCE EDUCATION" overlaid. Below the header, there is a horizontal menu with eight categories: "ADVANCED BIOLOGY", "ENVIRONMENTAL SCIENCES", "BASIC BIOLOGY", "PHYSICS", "CHEMISTRY", "PSYCHOLOGY", and "CLINICAL SKILLS". A callout "1" points to this menu. Below the menu, there are three large green tiles representing series: "ADVANCED BIOLOGY" (with a DNA icon), "BASIC BIOLOGY" (with a microscope icon), and "CHEMISTRY" (with a molecular structure icon). A callout "2" points to the "ADVANCED BIOLOGY" tile. To the right of each tile is a list of sub-sets. For "ADVANCED BIOLOGY", the sub-sets are "NEUROSCIENCE", "DEVELOPMENTAL BIOLOGY", "GENETICS", and "CELL BIOLOGY". A callout "3" points to the "NEUROSCIENCE" sub-set. For "BASIC BIOLOGY", the sub-sets are "GENERAL LABORATORY TECHNIQUES", "BASIC METHODS IN CELLULAR AND MOLECULAR BIOLOGY", "BIOLOGY 1: YEAST, DROSOPHILA AND C. ELEGANS", "BIOLOGY 2: MOUSE, ZEBRAFISH, AND CHICK", "LAB SAFETY - COMING SOON", and "LAB ANIMALS - COMING SOON". For "CHEMISTRY", the sub-sets are "GENERAL CHEMISTRY", "ORGANIC CHEMISTRY", "ANALYTICAL CHEMISTRY", "BIOCHEMISTRY - COMING SOON", "INORGANIC CHEMISTRY - COMING SOON", and "ORGANIC CHEMISTRY II - COMING SOON".

科教视频库结构：系列层级

每个系列包括特定学科专题范围内的多个视频子集。

1 系列

系列名称以及图标在此展示。

2 子集

此处对于每个子集进行简单介绍包括预览图像、文本概述以及两个视频预览。点击进入子集查看更多内容。

3 示例视频

每个子集都包括两个示例视频以供初步了解该子集所涉及的相关内容。

The screenshot displays the JoVE website interface for the 'SCIENCE EDUCATION PSYCHOLOGY' series. At the top, there is a search bar with the text 'Search by keywords, for example: 'stem cells'', and navigation links for 'ABOUT JoVE', 'FOR LIBRARIANS', 'VIDEO JOURNAL', 'SCIENCE EDUCATION', and 'PUBLISH'. The main content area is divided into two columns. The left column features a large video preview for 'BEHAVIORAL SCIENCE' with a yellow circle containing the number '2'. Below this, a text description states: 'This collection presents the fundamentals of behavior neuroscience and focuses on the concepts of learning, memory, cognition, movement, addiction and behavioral disorders.' Underneath the text are two video thumbnails, each with a play button and a yellow circle containing the number '3'. The first thumbnail is titled 'An Introduction to Learning and Memory' and the second is 'Fear Conditioning'. The right column features a large video preview for 'EXPERIMENTAL PSYCHOLOGY' with a yellow circle containing the number '2'. Below this, a text description states: 'This collection provides a framework for observing how psychological experiments are embedded in the actual research process, starting from the initial research design to arriving at conclusions in a study.' Underneath the text are two video thumbnails, each with a play button and a yellow circle containing the number '3'. The first thumbnail is titled 'From Theory to Design: The Role of Creativity in Designing Experiments' and the second is 'Ethics in Psychology Research'. At the bottom of the page, there are two more video preview thumbnails for 'COGNITIVE PSYCHOLOGY' and 'DEVELOPMENTAL PSYCHOLOGY'.

科教视频库结构：子集层级

子集页面显示特定子集所包括的所有科教视频，便于浏览。

1 子集信息

绿色标题栏中的内容包括子集的名称及描述，并显示了该子集在视频库中的位置。

2 视频缩略图

通过缩略图可以粗略了解视频内容及时长。

3 来源

列出了与JoVE合作录制此科教视频的专家、学者及相关研究机构。

The screenshot displays the JoVE website interface. At the top, there is a search bar with the text "Search by keywords, for example: 'stem cells'", a search icon, and buttons for "Advanced", "START A TRIAL", and "LOG IN". Below the search bar are navigation tabs: "ABOUT JOVE", "FOR LIBRARIANS", "VIDEO JOURNAL", "SCIENCE EDUCATION", and "PUBLISH". The main content area features a green header with a large number "1" and the text "SCIENCE EDUCATION > PSYCHOLOGY" and "COGNITIVE PSYCHOLOGY". Below this, a description reads: "This collection describes a number of influential paradigms used to study complex mental processes underlying attention, perception, learning and memory." The main content area lists several video entries, each with a thumbnail, a title, a source, and a brief description. The entries are: "Dichotic Listening" (Source: Laboratory of Jonathan Flombaum—Johns Hopkins University), "Measuring Reaction Time and Donders' Method of Subtraction" (Source: Laboratory of Jonathan Flombaum—Johns Hopkins University), "Perspectives on Cognitive Psychology" (Source: Laboratory of Jonathan Flombaum—Johns Hopkins University), "Visual Search for Features and Conjunctions" (Source: Laboratory of Jonathan Flombaum—Johns Hopkins University), and "Binocular Rivalry" (Source: Laboratory of Jonathan Flombaum—Johns Hopkins University). Each entry includes a video player thumbnail with a play button and a duration indicator.

科教视频库结构：视频层级

1 视频标题

视频标题与面包屑导航路径。

2 JoVE 课堂教学

JoVE课堂教学是服务于JoVE科教视频用户的资源。该板块全新上线，持续更新中。

3 创建 JoVE TEST

用户可以通过JoVE Test功能自定义测验内容，以评估学生在观看视频前后对于知识的掌握与理解情况。

4 获取类型

查看用户访问特定文章的权限是否由用户所在机构提供亦或此文章属于开放获取。

5 视频章节

点击对应章节跳转到视频中特定位置。

6 下载 PDF

将文本文章下载到您的电子设备中。

7 加入收藏

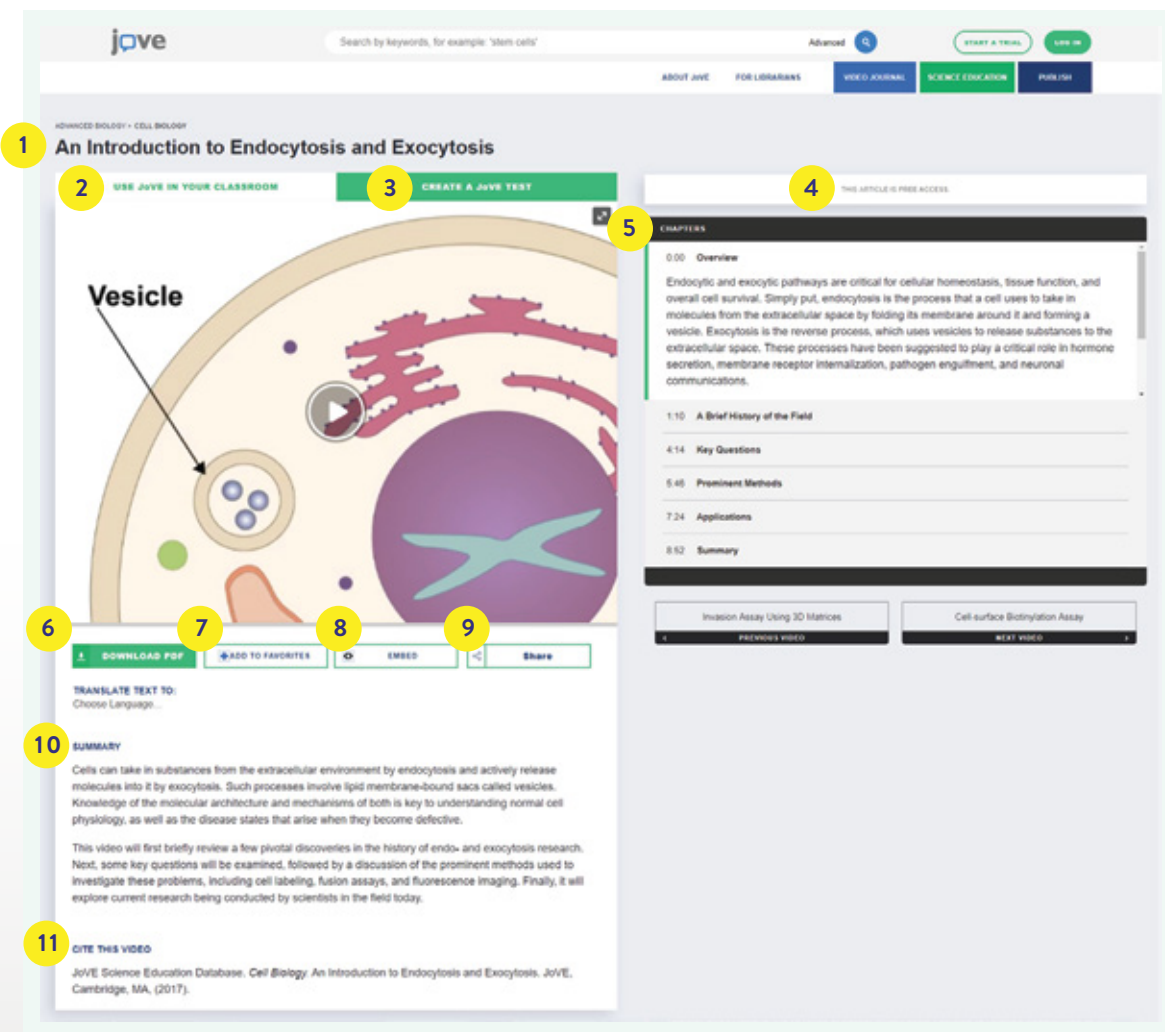
创建您收藏视频文章的播放列表。登录您的账户访问播放列表。

8 嵌入

轻松将视频嵌入任何学习管理或ERP系统中。

9 分享

轻松在社交媒体Twitter、Facebook或LinkedIn上分享本篇文章。



10 概要

视频内容的描述。

11 引用视频

复制引文自动将其添加到用户账户提供的引用列表中。

科教视频库结构：视频层级（2）

在科教视频下方，取决于视频的所涉及的领域及内容，您将会找到应用视频列表或者文本实验指南。

1 应用

精选应用视频展示如何将科教视频中所示的方法应用到实际科学研究中。

2 流程

科教视频附有文本实验指南，详细介绍了再现视频中所示实验的具体操作流程。

The image shows two screenshots of the JoVE website. The top screenshot, labeled '1', displays the 'APPLICATIONS' section with several video thumbnails and titles. The bottom screenshot, labeled '2', shows a detailed procedure for HPLC, including a table of stock standards and a list of steps for making the mobile phase and component solutions.

Table 1. Volumes of stock standards used to prepare the 7 provided working standards (total volume of each standard is 50 mL).

Standard	Volume (mL)	Volume (mL)	Volume (mL)
1	3	3	3
2	5	5	5

PROCEDURE

1. Making the Mobile Phase

1. Prepare the mobile phase by adding 400 mL of acetonitrile to approximately 1.5 L of purified DI water.
2. Carefully add 2.4 mL of glacial acetic acid to this solution.
3. Dilute the solution to a total volume of 2.0 L in a volumetric flask with purified DI water. The resulting solution should have a pH between 2.8 to 3.2.
4. Adjust the pH to 4.2 by adding 40% sodium hydroxide, drop-wise with the use of a calibrated digital pH meter. Add very slowly once the pH reaches 4.0. This should take around 50 drops to accomplish.
5. Filter the mobile phase through a 0.47-µm Nylon 66 membrane filter under vacuum to degas the solution and to remove solids that could plug the chromatographic column. It is important to degas the mobile phase to avoid having a bubble, which could either cause a void in the stationary phase at the inlet of the column or work its way into the detector cell, causing instability with the UV absorbance.

2. Creating the Component Solutions

The three components that need to be made are caffeine (0.8 mg/mL), potassium benzoate (1.4 mg/mL), and aspartame (L-aspartyl-L-phenylalanine methyl ester) (8.0 mg/mL). These concentrations, once diluted in the same fashion, put the standards at the levels found in the soda samples.

1. Add 0.40 g of caffeine to a 500-mL volumetric flask, then dilute to the 500-mL mark with DI water.
2. Add 0.70 g of benzoate to a 500-mL volumetric flask, then dilute to the 500-mL mark with DI water.
3. Add 0.60 g of aspartame to a 100-mL volumetric flask, then dilute to the 100-mL mark with DI water. Place this solution in a refrigerator to avoid decomposition during storage.

用户账户与特色功能

用户可以利用机构邮箱创建账户以便在校外时进行访问。同时，还能享受以下特色功能：

1 用户账户面板

2 查看视频观看历史记录

利用视频观看历史记录功能轻松查找以前观看过的视频文章。

3 收藏文章

通过此处访问您收藏的视频文章播放列表。添加视频，仅需点击文章页面上视频播放器下方的“add to favorite”按钮。

4 引用列表

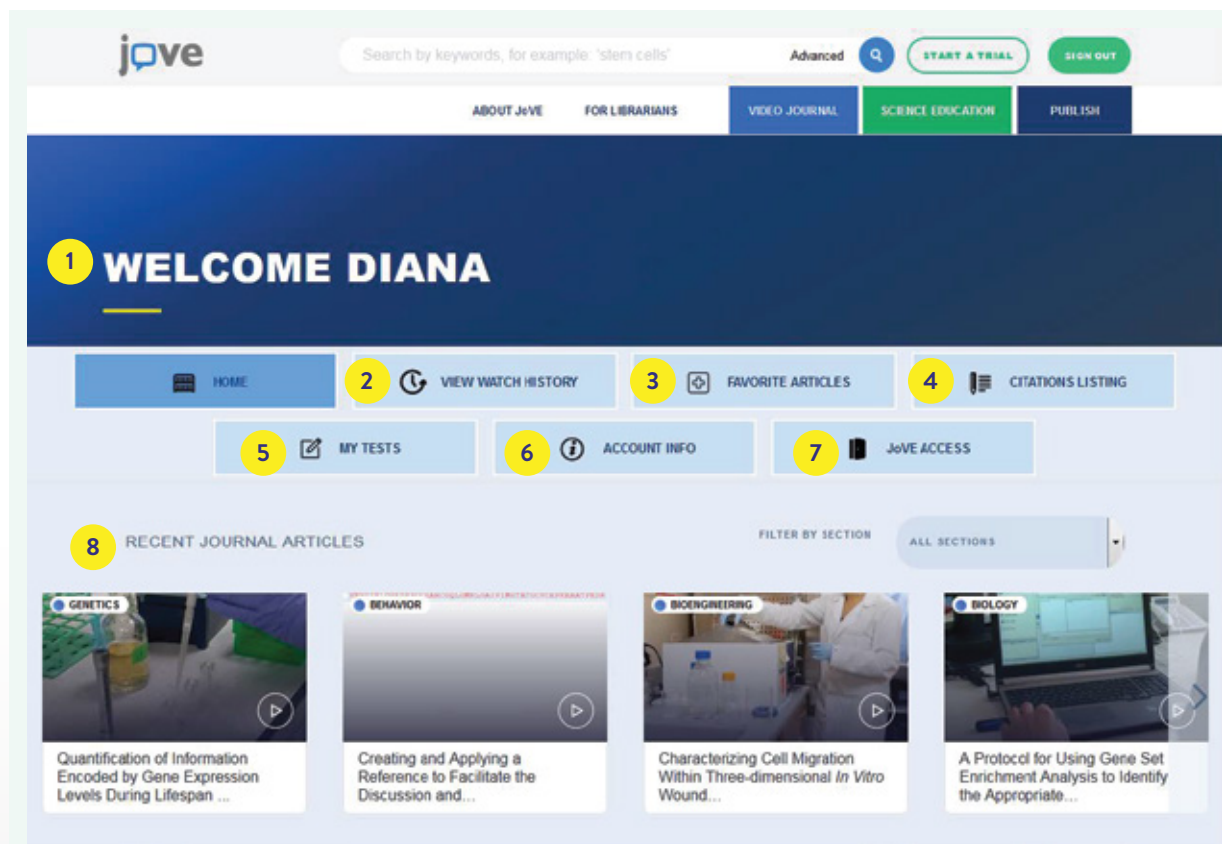
访问您所引用的所有视频文章的列表。添加文章，仅需点击文章页面上视频播放器顶部的“cite this”按钮。

5 MY TESTS

在课堂或实验室教学中使用科教视频资源的教职人员可以从这里管理其自定义的测试。

6 账号信息

管理您的账户设置，更新信息或更改密码。



7 访问 JoVE

查看您通过所在机构对 JoVE 的访问权限。

8 最新期刊视频文章

最新发表的视频文章将在此处可见。您可以按专辑进行筛选。

遇到技术难题？

在线填写技术支持表格：

→ [JoVE.com/about/contact](https://www.jove.com/about/contact)

想要及时了解JoVE最新发表的科研视频文章？

请在JoVE官网主页最下方注册订阅Scientist Newsletter：

→ [JoVE.com](https://www.jove.com)

欲了解更多信息，欢迎访问 [JoVE.com](https://www.jove.com)