



# User Guide

JoVE Journal & Science Education

October 2016

# What is JoVE?

[JoVE](http://www.jove.com) is the world's first and only peer reviewed and PubMed Indexed scientific video journal.

JoVE has published over 5,000 video articles from institutions including Harvard, Stanford, MIT, and the NIH.

These video articles present cutting-edge research in over a dozen fields of scientific study and are viewed by millions of users in over 900 institutions around the globe.



# JoVE's Solutions



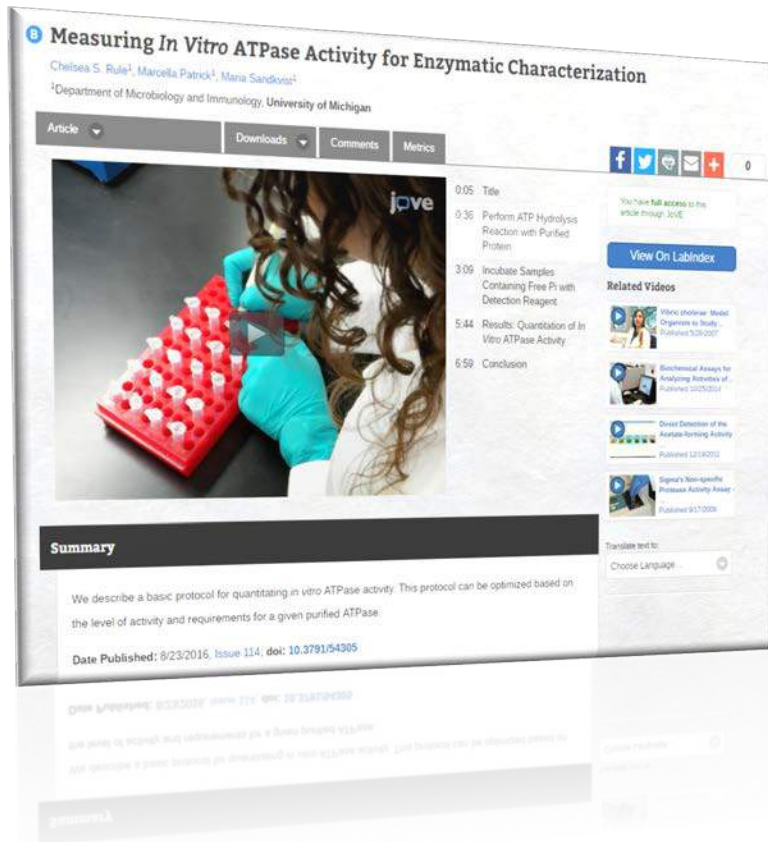
## **JoVE Journal**

The first scientific video journal dedicated to help scientists advance their research by increasing productivity, efficiency, and reproducibility.

## **Science Education**

An innovative video database that is dedicated to teaching laboratory fundamentals through simple, easy-to-understand video demonstrations.

# JoVE Journal



- Peer-reviewed by our prestigious editorial board
- Indexed in PubMed, Medline, SciFinder, etc.
- Over 5000 articles – 90 new video articles published each month
- Customized subscription model by section (13 sections)
- Over 16,000 published authors from top institutions worldwide

# Journal Sections



Biology



Immunology & Infection



Chemistry



Developmental Biology



Behavior



Biochemistry



Cancer Research



Medicine



Neuroscience



Bioengineering



Engineering

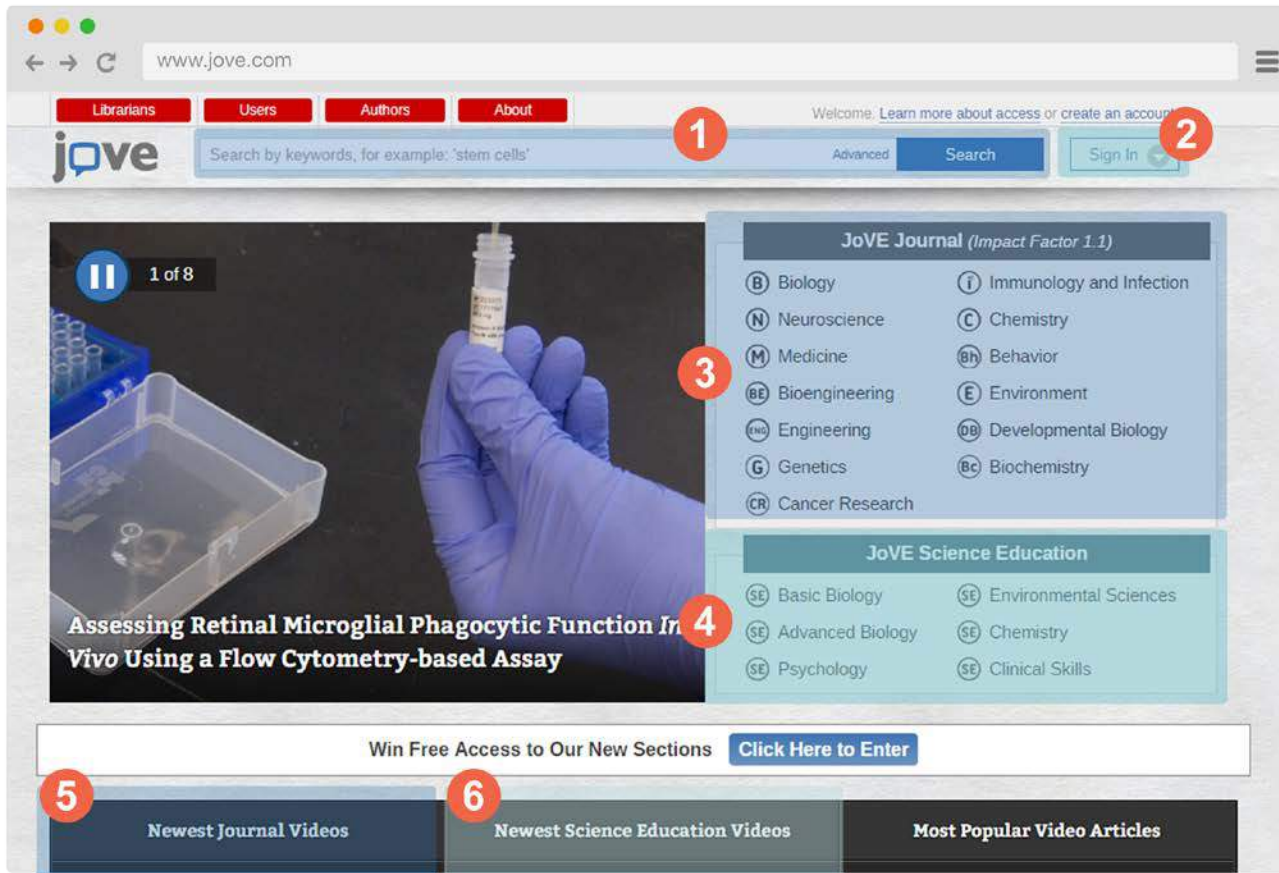


Environment



Genetics

# JoVE Home Page & Navigation



1 Keyword Search

2 Sign In or Create An Account

3 JoVE Journal

4 Science Education

5 Newest Journal Videos

6 Recent Science Education Video



# Journal Search & Results

The screenshot shows the JoVE website search results for the query 'stem cells'. The interface includes a navigation bar with links for Librarians, Users, Authors, and About. A search bar at the top contains the text 'stem cells'. Below the search bar, a 'Refine your search:' section on the left offers filters for 'Containing Text', 'Filter by author or institution', and 'Filter by publication date'. The main results area displays a list of video articles. The first article is titled 'High Efficiency Differentiation of Human Pluripotent Stem Cells to Cardiomyocytes and Characterization by Flow Cytometry'. The second article is titled 'Isolation and Expansion of Mesenchymal Stem/Stromal Cells Derived from Human Placenta Tissue'. Numbered callouts (1-5) highlight specific features: 1 points to the '4149 Video Articles' count; 2 points to the pagination links; 3 points to the 'Refine your search:' section; 4 points to the 'CONTAINS stem cells' filter; and 5 points to the first search result.

1 4149 Video Articles

2 1 2 3 4 5 6 7 8 9 ... 415

3 Refine your search:

4 CONTAINS stem cells

5 High Efficiency Differentiation of Human Pluripotent Stem Cells to Cardiomyocytes and Characterization by Flow Cytometry

1 Number Of Produced Video

2 Page Buttons (Current And All)

3 Advanced Search Options

4 Search Query

5 Search Results By Order Of Relevance

## Filter Search Result:

- Filter By Section
- Filter By Publish Date
- Filter By Authors or Institutions
- Search For Videos By Keywords

# Journal Article Page (top of article)

The screenshot shows the top of a JoVE article page. At the top is a navigation bar with links for Librarians, Users, Authors, and About. Below this is a search bar and a 'Sign Out' button. The article title is 'Eye-Tracking Control to Assess Cognitive Functions in Patients with Amyotrophic Lateral Sclerosis'. The authors are listed below the title. A video player is embedded in the article content, showing a woman in a lab setting. To the right of the video player is a table of contents for the video chapters. Below the video player is a 'Related Videos' section with a list of related articles. Numbered callouts 1 through 5 are placed over specific elements on the page: 1 points to the author names, 2 points to the 'Article' dropdown menu, 3 points to the 'Downloads' button, 4 points to the video player, and 5 points to the 'Related Videos' section.

1 Clicking On The Name Displays The Author's Publication History

2 Click Here To Jump To Different Sections Of The Article

3 Download The Article Or Materials List As PDF

4 Article Chapter Selection

5 List Of Related Videos



# Journal Article Page (scroll down page)

The screenshot shows a web browser at www.jove.com. The page has a navigation bar with 'Librarians', 'Users', 'Authors', and 'About' links. A search bar is present with the text 'Search by keywords, for example: "stem cells"'. Below the navigation bar, there is a paragraph of text: 'tailored for and tested on mouse preimplantation embryos and ESCs; nevertheless its performance on other systems with high nuclear density, although yet untested, is expected to be equivalent.'

The main content area is titled 'Protocol'. It contains an 'Ethics statement: All animal work, including husbandry, breeding and sacrifice was approved by Memorial Sloan Kettering Cancer Center's Institutional Animal Care and Use Committee (IACUC), protocol #03-12-017.'

**1. Embryo Collection**

Note: All animal work must have been approved by institutional and local authorities and conform to local and institutional rules.

1. Mate a virgin female mouse with a fertile stud male of the desired genotypes.  
Note: If setting up natural matings, selecting females in the estrus phase of the estral cycle increases the chances of copulation on the desired date. If inducing superovulation, please refer to the protocols described in <sup>20</sup>.
2. Check the presence of a vaginal plug in the morning using a blunt probe. Ideally, do this before noon (12:00 pm), as copulation plugs are lost throughout the day. Consider noon of detection of the vaginal plug embryonic day (E)0.5.
3. On the desired day and time of embryonic development, warm up M2 or flushing holding medium (FHM) to RT or, preferably, 37 °C. Note: Either M2 or FHM can be used for flushing and handling embryos. When not in use, store these media at 4 °C. Estimate the use of ~2 ml of medium for each uterus.

On the right side of the page, there is a video player. The video title is 'Embryo Collection'. The video player shows a person in a lab coat performing a procedure. A red circle with the number '2' is overlaid on the video player.

**1** Scroll Down To Read The Full Length Article Text

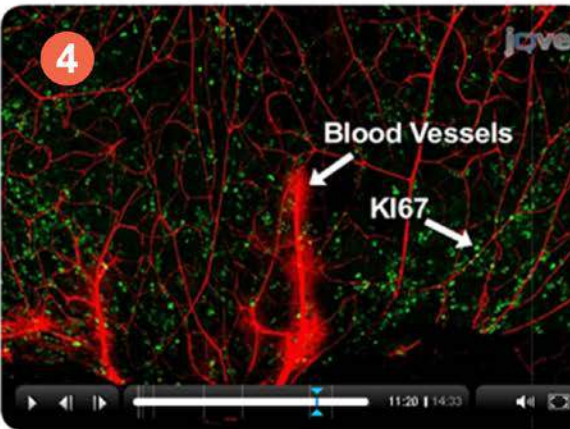
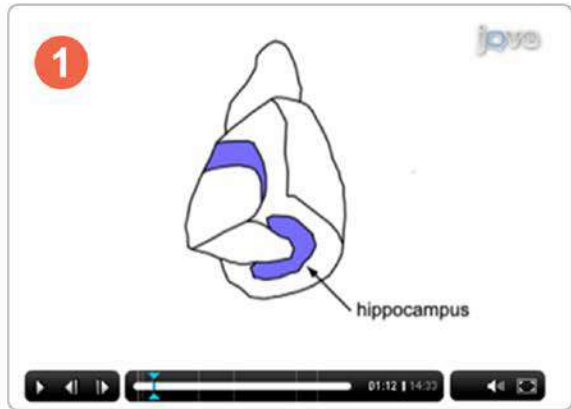
**2** Article Video Sticks To The Right Of The Text For Easy Access

The text article is made up of various sections including:

- Cite this Article
- Abstract
- Introduction
- Protocol
- Results
- Discussion
- Materials List
- References

\* You can download a PDF of the text article

# Journal Article Structure



1 Abstract

2 Introduction

3 Protocol

4 Results & Discussion

# Journal Publication Process



# Journal Benefits

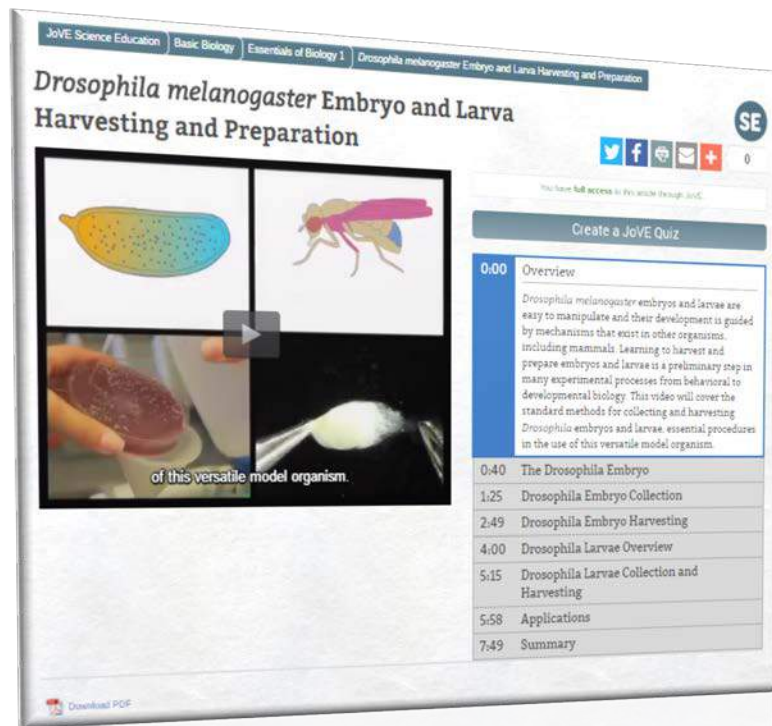
- Increase **research productivity** and **reproducibility**
- **Quickly onboard** new lab trainees
- **Save money and resources** for labs
- Learn **gold-standard** and **newest methods**

*“Methods are complex and can only partially be described in words. Seeing the method performed immediately provides a wealth of information to the viewer. This information conveys a realistic idea of how the method is done, what is needed to do it, and helps the viewer analyze how they should proceed.”*



*Dr. Michele Calos,  
Stanford University*

# Science Education (SE)



- Laboratory Fundamentals
- Simple, Easy to Understand Video Demonstrations
- Engaging Animations
- 300 professionally produced core videos with over 40 hours of tutorial content
- Video content maps directly to classes
- Flipped Classroom Tool
- JoVE Quiz Testing Tool

# SE Volumes & Collections

## SE Basic Biology

General Laboratory Techniques  
Basic Methods in Cellular and Molecular Biology  
Essentials of Biology 1: yeast, *Drosophila* and *C. elegans*  
Essentials of Biology 2: Mouse, Zebrafish, and Chick

## SE Advanced Biology

Essentials of Neuroscience  
Essentials of Developmental Biology  
Essentials of Genetics  
Essentials of Cell Biology

## SE Clinical Skills

Essentials of Physical Examinations I  
Essentials of Physical Examinations II

## SE Psychology

Essentials of Behavioral Science  
Essentials of Experimental Psychology  
Essentials of Cognitive Psychology  
Essentials of Developmental Psychology

## SE Environmental Sciences

Essentials of Environmental Science  
Essentials of Environmental Microbiology  
Essentials of Earth Science

## SE Chemistry

Essentials of General Chemistry  
Essentials of Organic Chemistry  
Essentials of Analytical Chemistry



# SE Video Demonstration Page

The screenshot shows the JoVE website interface. At the top, there is a search bar (1) with the text "Search by keywords, for example: 'stem cells'". Below the search bar, there are navigation links for "Librarians", "Users", "Authors", and "About". The main content area features a video player (4) showing a person lighting a Bunsen burner. To the right of the video player, there is a table of contents (3) with the following items:

Time	Topic
0:00	Overview
0:36	Bunsen Burner Components
2:08	Bunsen Burner Operation and Types of Flames

Below the table of contents, there is a text box (5) with the following text:

To use a Bunsen burner, first make sure the collar is closed.

To ensure that you have the hottest, cleanest flame possible, make sure your rubber tubing is securely connected to the gas jet and to the gas inlet valve.

A heatproof mat can be placed under the Bunsen burner as an extra safety precaution to prevent damage to your bench top and to catch stray sparks.

Before lighting, place the Bunsen burner at least 12 inches in front of any overhead shelving or equipment and be mindful of loose hair or clothing.

1 Search Bar

2 JoVE Quiz

3 Timeline And Overview

4 Closed Captioning

5 Printable PDF Transcript

# SE Quiz Creation (step 1)

www.jove.com

## Manage your JoVE Quizzes

**Welcome!**

Use this page to create quizzes for your students about JoVE videos, as well as see results.

**Your Existing Quizzes**

Quiz Name	Article ID	Results	Actions
You have not issued any quizzes. Use the "Create a New Quiz" section below to create a new quiz.			

**Create a New Quiz**

1 Collection: Select... \*

**Create a New Quiz**

Collection: Essentials of Biology 1: yeast, Drosophila and C. elegans \*

Article: An Introduction to Saccharomyces... \*

Quiz Name: 5081\_Question\_Set\_V1 \*

Email Addresses: (comma separated) 2 \*

1 Select the collection you wish to create a quiz for and then select the article title.

2 Enter the email addresses or listserv address of the quiz taker(s).

# SE Quiz Creation (Step 2)

Questions may be ordered however you would like just drag and drop them where you would like them to be.

Create a New Quiz

Collection: Essentials of Biology 1: yeast, Drosophila and C. elegans \*

Article: An Introduction to Saccharomyces... \*

Quiz Name: 5081\_Question\_Set\_V1 \*

Email Addresses: (comma separated) \*

Question 1: What characteristic of *S. cerevisiae* classifies it to the Kingdom *Fungi*?

Answers:

- ☐ It has membrane-bound nuclei.
- ☐ It has a cell wall made of chitin.
- ☐ It is unicellular.
- ☐ It is multicellular.

4 Choose File No file chosen

Add Question Review Quiz 5

3 These are preset questions written by our in-house scientists who have put together the collections. You can add, edit, or remove these questions here. Select the correct answer if you are customizing the quiz.

4 You may also include an image for reference by clicking "Choose File" and selecting your image.

5 Confirm and preview your quiz before sending it out to the recipients in (2).

# SE Benefits

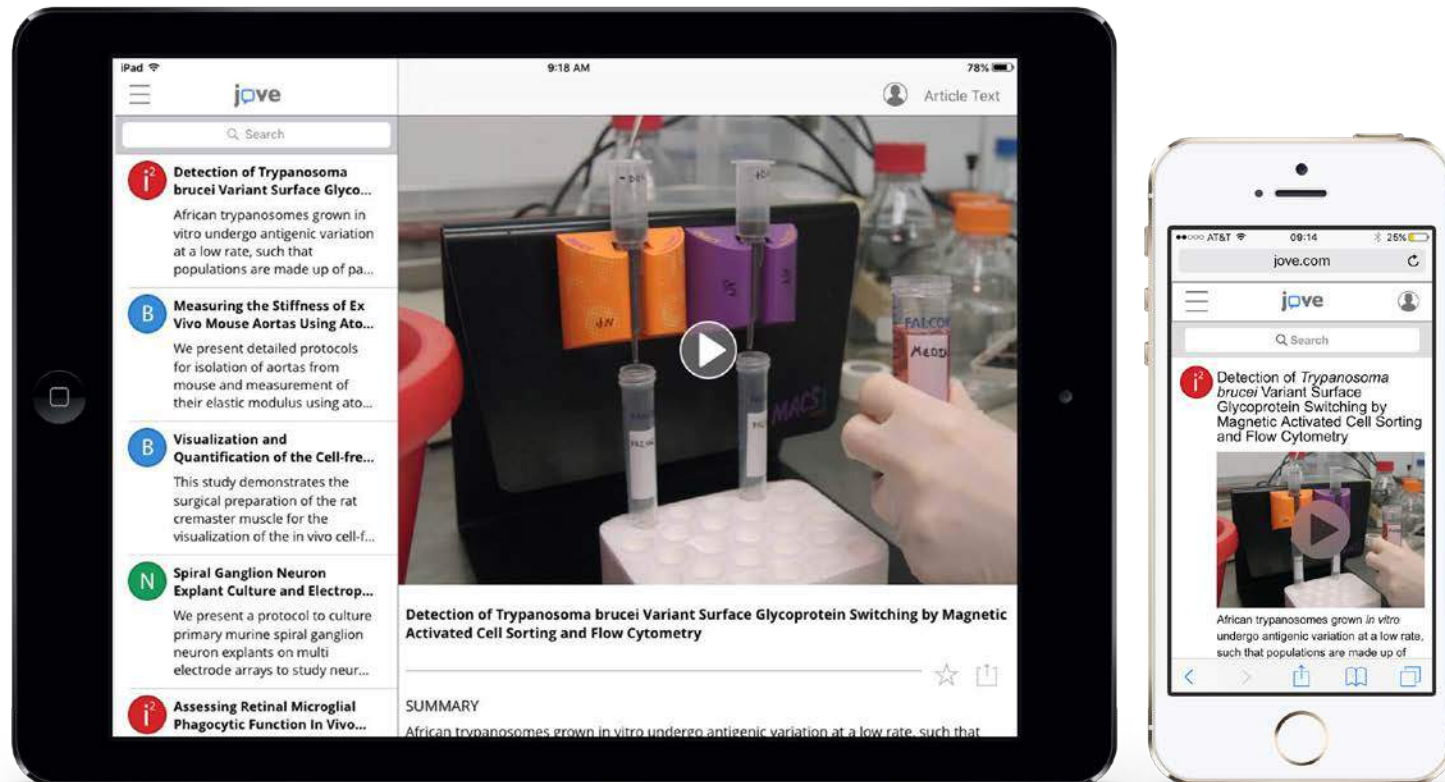
- **Increased speed of learning** in laboratory and classroom environments
- **Saved time and work for teaching faculty**
- Consistent **growth in student success**, learning outcomes, and **STEM retention**
- Support both undergraduate and graduate instruction

“  
*Initially it took multiple tries, whereas now when we teach this technique with the JoVE video we have a success rate between 90 to 100 percent.*”

Dr. Carrie Northcott  
Michigan State University



# JoVE Access Anywhere



# JoVE Account Creation (Off-Campus Access)

The screenshot shows the JoVE website's account creation interface. On the left, a 'Sign In' dropdown menu is open, showing options for Email, Password, and Sign In (Step 1). The main content area is titled 'Create a JoVE account'. It includes a welcome message, a sign-in button, and links for 'Create an Account', 'Forgot Password', and 'Sign in with Shibboleth'. The 'Create a JoVE account' section explains that creating an account is easy and free, and that it allows users to use their institution's subscription even when off-campus. It also mentions that users can post questions for article authors. A note states that the domain of the email address must match a subscribing institution for access to be granted. Below this, there is a link to the subscriber list and more information about JoVE subscriptions. The form fields are as follows: First Name (Step 2), Last Name (Step 2), Institutional Email (Step 2), Password (Step 2), and Verify Password (Step 2). Below these fields, there is a section for optional information: Research Area, Affiliation (a dropdown menu), Institution, Department, and Position (Step 3). A CAPTCHA section (Step 4) asks the user to enter the text they see below, with a 'Type the text' input field and a 'CAPTCHA' button. At the bottom, there is a 'Create Account' button (Step 5) and a disclaimer: 'By clicking "Create Account", you agree to our policies.'

**1** Sign in with your institutional email OR create an account.

**2** Fill out mandatory fields.

**3** Optional fields that maximize your JoVE experience.

**4** Enter the CAPTCHA

**5** Click "Create Account" and you're done!



# Contact JoVE

## Technical Questions:

Contact Support via our website at  
[www.jove.com/about/contact](http://www.jove.com/about/contact)

## Subscription Questions:

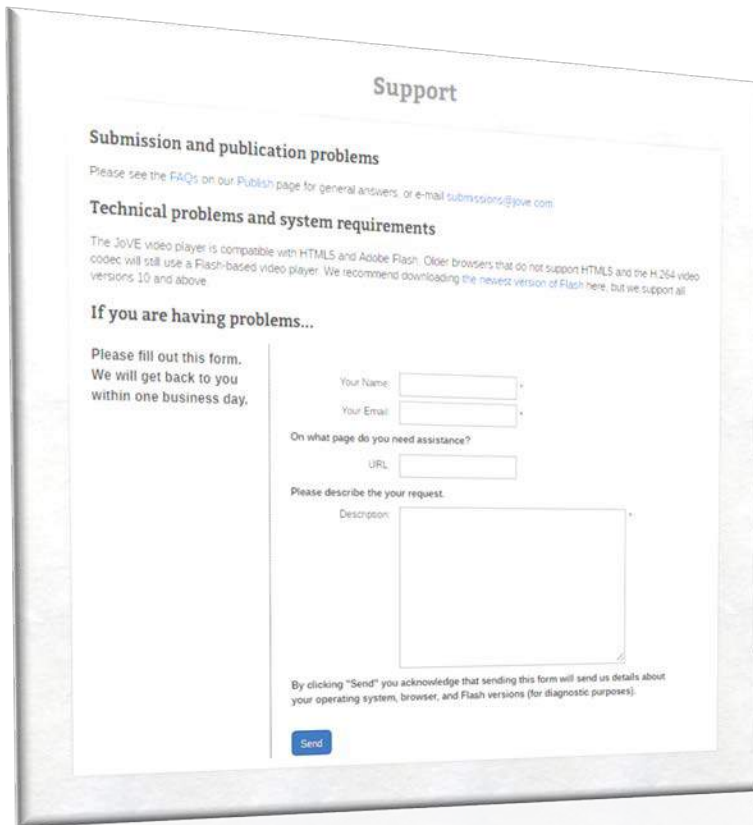
Contact Library Relations

Email: [subscriptions@jove.com](mailto:subscriptions@jove.com)

Tel: +1.617.401.7717

## Publication Questions:

Contact our Editorial team at  
[submissions@jove.com](mailto:submissions@jove.com)



The screenshot shows a web page titled "Support". It has two main sections: "Submission and publication problems" and "Technical problems and system requirements". The "Technical problems and system requirements" section contains text about video player compatibility. Below this is a form titled "If you are having problems...". The form includes fields for "Your Name", "Your Email", "On what page do you need assistance?" (with a URL field), and "Please describe your request." (with a description field). At the bottom of the form is a "Send" button. A disclaimer at the bottom of the form states: "By clicking 'Send' you acknowledge that sending this form will send us details about your operating system, browser, and Flash versions (for diagnostic purposes)."