



User Guide

JoVE Journal & Science Education

October 2016

What is JoVE?

[JoVE](#) is the world's first and only peer reviewed and PubMed Indexed scientific video journal.

JoVE has published around 6,000 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 1000 institutions around the globe.



JoVE's Solutions



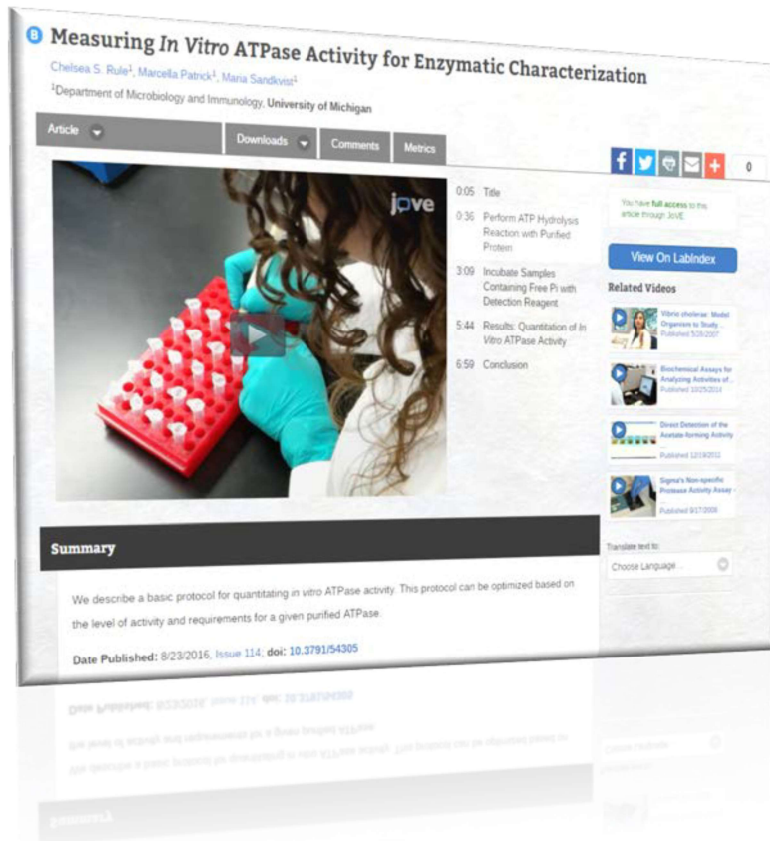
JoVE Journal

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

The screenshot shows the JoVE website home page with the following elements and callouts:

- 1**: Keyword Search bar at the top.
- 2**: Sign In or Create An Account button at the top right.
- 3**: JoVE Journal (Impact Factor 1.1) category menu.
- 4**: Science Education category menu.
- 5**: Newest Journal Videos button at the bottom left.
- 6**: Newest Science Education Videos button at the bottom center.

The main content area features a video player on the left with a video titled "Assessing Retinal Microglial Phagocytic Function In Vivo Using a Flow Cytometry-based Assay" and a list of journal categories on the right:

JoVE Journal (Impact Factor 1.1)

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

JoVE Science Education

- Basic Biology
- Advanced Biology
- Psychology
- Environmental Sciences
- Chemistry
- Clinical Skills

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 page includes a navigation bar with 'Librarians', 'Users', 'Authors', and 'About' links. A search bar contains 'stem cells' and a 'Search' button. A 'Sign In' button is also visible. The search results are displayed in a grid format. A sidebar on the left allows for refining the search with filters for 'Containing Text', 'Filter by author or institution', and 'Filter by publication date'. The main content area shows a list of video articles, with the first article titled 'High Efficiency Differentiation of Human Pluripotent Stem Cells to Cardiomyocytes and Characterization by Flow Cytometry'. The article title and abstract are visible, along with the authors' names and affiliations. A 'CONTAINS' button is shown above the article title. The page number '415' is visible at the bottom of the search results area.

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

Stem Cells: Relatively undifferentiated cells that retain the ability to divide and proliferate throughout postnatal life to provide progenitor cells that can differentiate into specialized cells.

Subarna Bhattacharya¹, Paul W. Burridge², Erin M. Kropp¹, Sandra L. Chuppa¹, Wai-Meng Kwok³, Joseph C. Wu², Kenneth R. Boheler^{4,5}, Rebekah L. Gundry^{1,6}

¹Department of Biochemistry, Medical College of Wisconsin, ²Stanford Cardiovascular Institute, Stanford University School of Medicine, ³Department of Anesthesiology, Medical College of Wisconsin, ⁴Stem Cell and Regenerative Medicine Consortium, LKS Faculty of Medicine, Hong Kong University, ⁵Division of Cardiology, Johns Hopkins University School of Medicine, ⁶Cardiovascular Research Center, Biotechnology and Bioengineering Center, Medical College of Wisconsin

Isolation and Expansion of Mesenchymal Stem/Stromal Cells Derived from Human Placenta Tissue

Rebecca A. Pelekanos¹, Varda S. Sardesai¹, Kathryn Futrega², William B. Lott², Michael Kuhn², Michael D. Demeo^{2,3}

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 journal article page. The browser address bar displays 'www.jove.com'. The page header includes navigation links for 'Librarians', 'Users', 'Authors', and 'About', along with 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'. Below the title, the authors' names and affiliations are listed. A video player is embedded in the article content, showing a woman in a laboratory setting. A table of contents is visible on the right side of the video player. A 'Related Videos' section is located below the video player. Five red callout boxes with white numbers 1 through 5 point to specific elements: 1 points to the author names, 2 points to the article title, 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 features a navigation bar with 'Librarians', 'Users', 'Authors', and 'About' buttons. A search bar is present with the text 'Search by keywords, for example: "stem cells"'. Below the search 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.' A 'Protocol' section is highlighted with a dark header. It contains an ethics statement and a numbered list of steps for 'Embryo Collection'. A video player is embedded on the right side of the page, showing a person in a lab coat performing a procedure. A table of contents is visible below the video player.

Protocol

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 ²⁰.
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.

Translate text to:
Choose Language...

0:05 Title
0:41 Embryo Collection
3:25 Confocal Imaging
4:47 Image Analysis and Data Pre-processing
8:44 Results: Lineage Specification Analysis in Mouse Preimplantation Embryos
10:30 Conclusion

1 Scroll Down To Read The Full Length Article Text

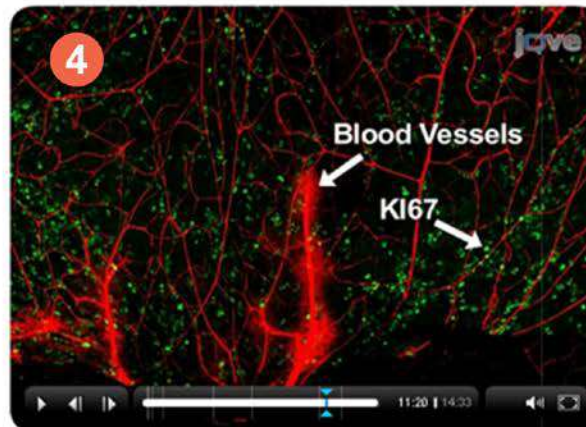
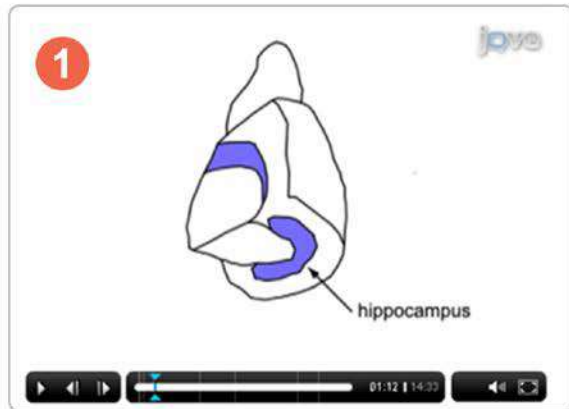
2 Article Video Sticks To The Right Of The Text For Easy Access

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)

The screenshot shows a JoVE Science Education article page. The title is "Drosophila melanogaster Embryo and Larva Harvesting and Preparation". The page features a video player with a play button and a thumbnail showing a Drosophila embryo and larva. Below the video player is a table of contents with the following entries:

0:00	Overview
0:40	The Drosophila Embryo
1:25	Drosophila Embryo Collection
2:49	Drosophila Embryo Harvesting
4:00	Drosophila Larvae Overview
5:15	Drosophila Larvae Collection and Harvesting
5:58	Applications
7:49	Summary

The page also includes a "Create a JoVE Quiz" button and a "Download PDF" link.

- 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

www.jove.com

Librarians Users Authors About

Welcome, JoVE. Learn more about access.

Search by keywords, for example: "stem cells" Advanced Search Sign In

English 中文 (Chinese) français (French) Deutsch (German) 日本語 (Japanese)

JoVE Science Education Basic Biology General Laboratory Techniques Introduction to the Bunsen Burner

Introduction to the Bunsen Burner

SE

You have full access to this article through JoVE.

2 Create a JoVE Quiz

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

4 Use a spark lighter to light the

5 Download PDF

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*? **3**

Answers:

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

Image: **4** Choose File No file chosen

5 Review Quiz

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

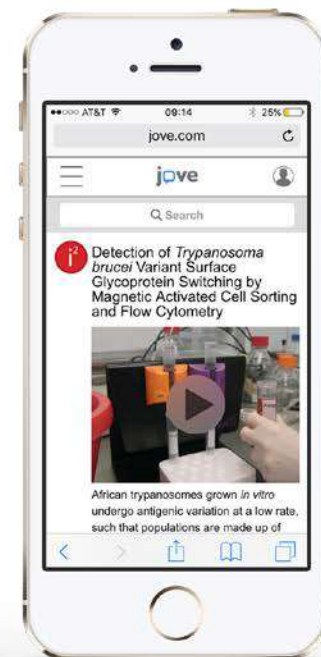
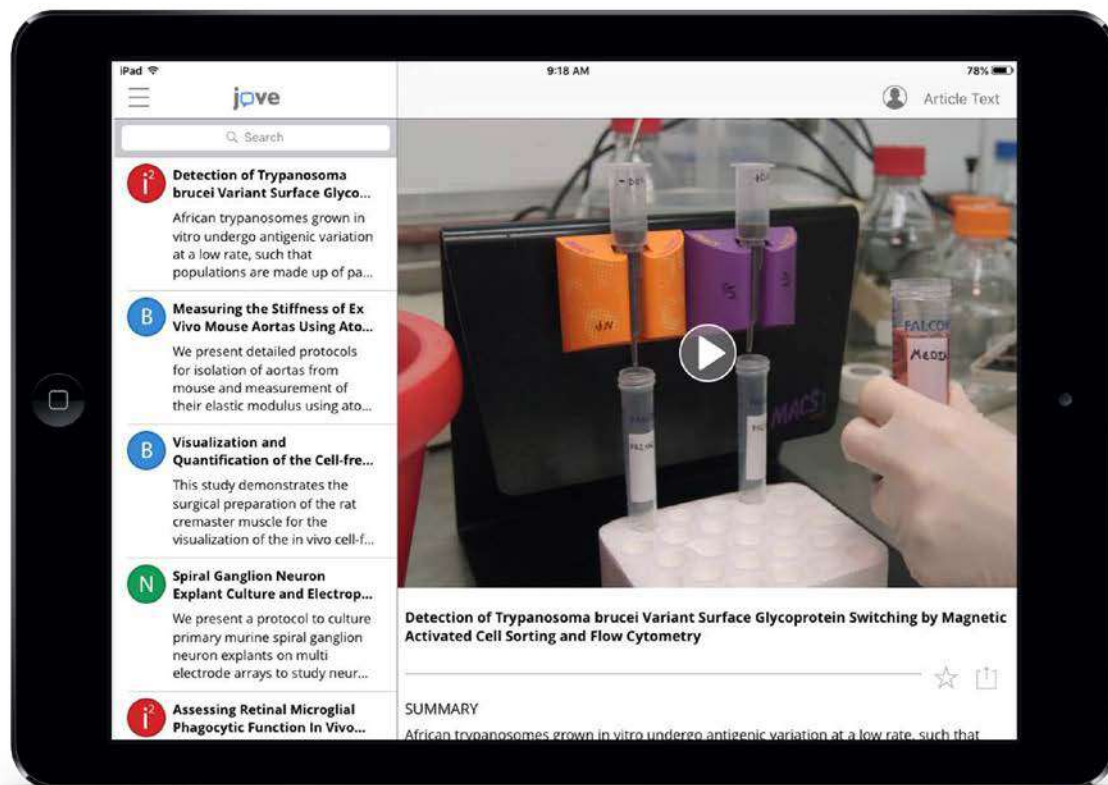
- **Increased speed of learning** in laboratory and classroom environments
- **Saved time and work for teaching faculty**
- Consistent **growth in student success**, learning outcomes, and **STEM retention**
- Support both undergraduate and graduate instruction

“
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. A navigation menu on the left includes 'Sign In' and 'Create an Account'. The main content area is titled 'Create a JoVE account' and contains the following elements:

- 1**: A 'Sign In' dropdown menu with fields for 'Email' and 'Password', and a 'Sign In' button.
- 2**: A 'Create a JoVE account' section with a heading 'Creating an account is easy and free.' and a paragraph: 'With an account you can use your institution's subscription even when off campus, and you can post questions for article authors. Please note that the domain of your email address must match a subscribing institution for access to be granted.' Below this is a paragraph: 'Wondering if your institution subscribes to JoVE? See our subscriber list.' and another paragraph: 'More information about JoVE subscriptions is available here or contact our subscriptions department directly.'
- 3**: A form titled 'Fields marked with an asterisk (*) are required.' with fields for 'First Name', 'Last Name', 'Institutional Email', 'Password', and 'Verify Password'. Below this is a section titled 'For the best experience using JoVE, please tell us a little more about yourself.' with fields for 'Research Area', 'Affiliation' (a dropdown menu), 'Institution', 'Department', and 'Position'.
- 4**: A CAPTCHA section titled 'Please enter the text you see below.' with a CAPTCHA image and a text input field.
- 5**: A 'Create Account' button at the bottom of the form.

At the bottom of the page, there is 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

Subscription Questions:

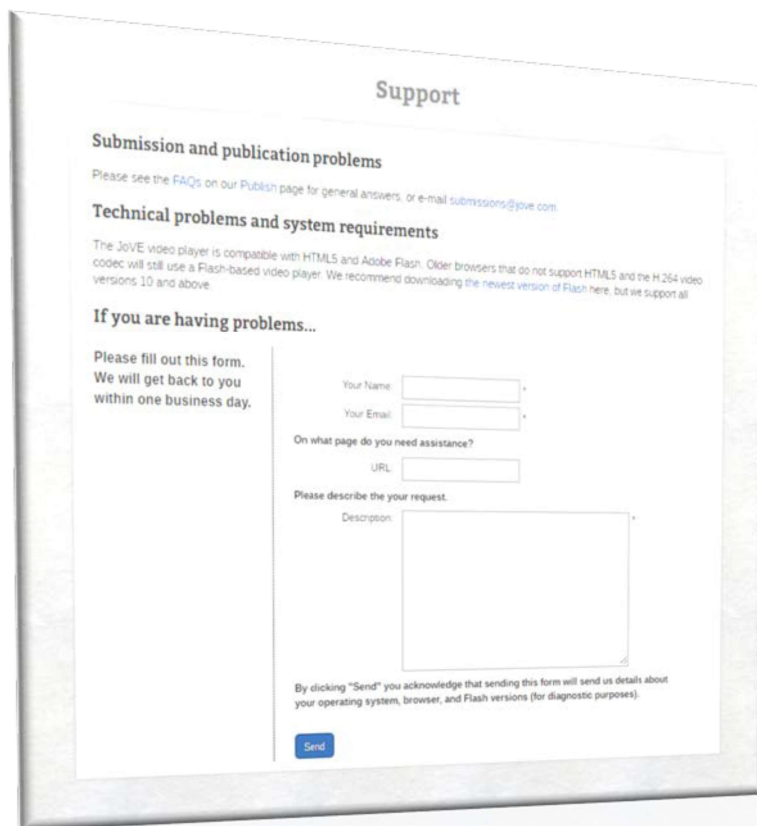
Contact Dan Marin

Email: dan.marin@jove.com

Tel: +44.20.3743.7148

Publication Questions:

Contact our Editorial team at submissions@jove.com



The image shows a screenshot of a web form titled "Support". The form is divided into several sections:

- Submission and publication problems:** Includes a link to FAQs and an email address: submissions@jove.com.
- Technical problems and system requirements:** Provides information about browser compatibility (HTML5, Adobe Flash, H.264) and recommends downloading the latest version of Flash.
- If you are having problems...:** A section for user input, including:
 - Fields for "Your Name" and "Your Email".
 - A dropdown menu for "On what page do you need assistance?".
 - A text input field for "URL".
 - A large text area for "Please describe the your request." with a "Description:" label.
- Disclaimer:** A small text block stating: "By clicking 'Send' you acknowledge that sending this form will send us details about your operating system, browser, and Flash versions (for diagnostic purposes)."
- Submit Button:** A blue button labeled "Send".