

Synergistic Evolution Education: Want to Build, Implement and Assess a Problem Space Associated with an Integrative Evo-ED Case? (We Hope So!!)

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INTRODUCTION

The NSF-funded Evo-ED Cases developed at Michigan State University (www.evo-ed.org) have proven to be popular and effective resources for teaching evolutionary principles. However, one of the shortfalls of the Evo-ED Cases as they currently exist is that they do not contain formal inquiry components. Thus, one of our current objectives is to build investigative problem spaces to be associated with each of the original six Evo-ED Cases and six new Evo-ED Cases that we would like to build.

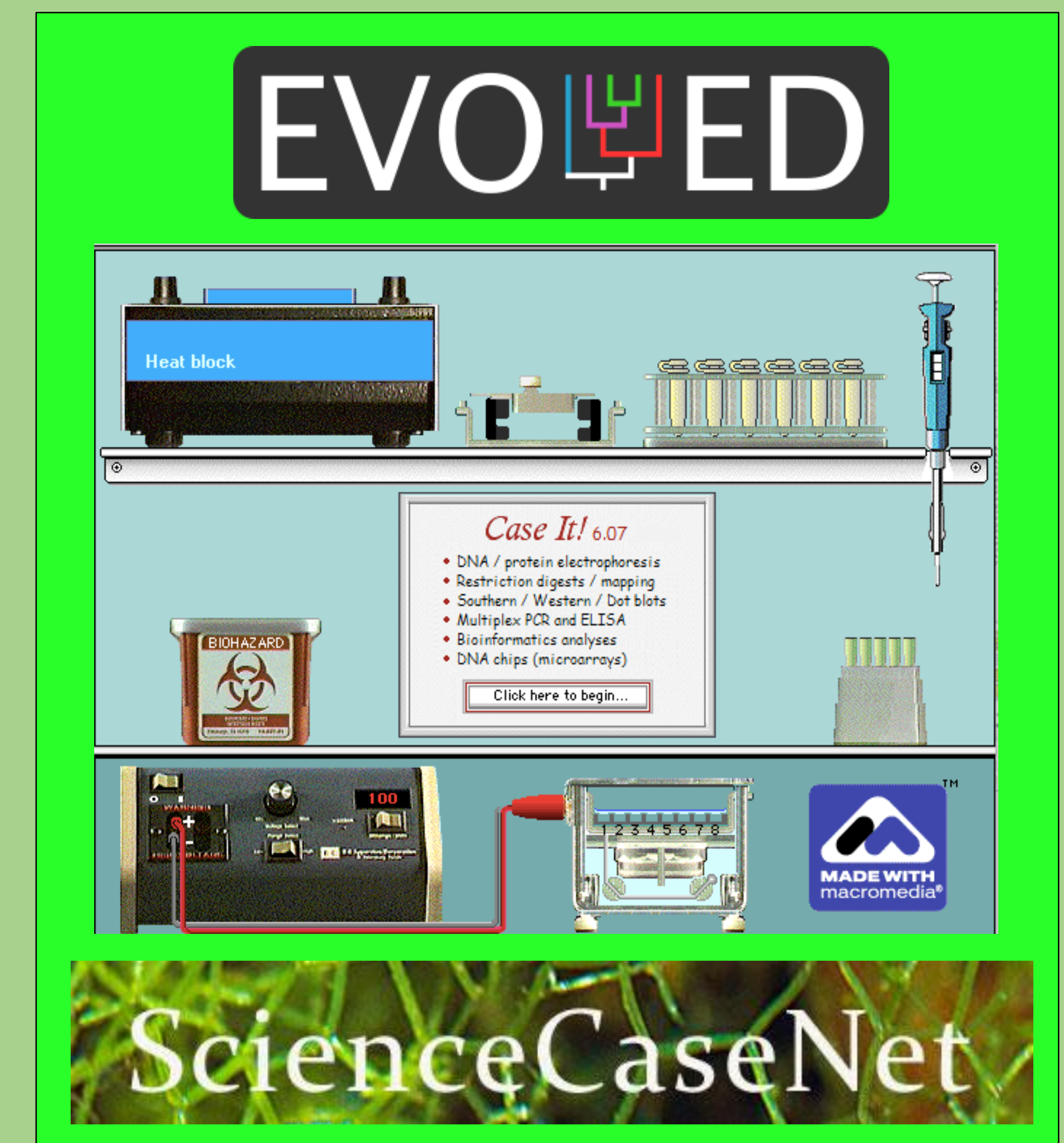
At BioQUEST 2016, we would like to identify faculty who would be interested in becoming BioQUEST Case Fellows, working with our group to work on building a new case, and/or to build an investigative problem space for a case.

Option 1: Build an inquiry-based problem space attached to an existing Evo-ED Case. Participants choosing this option will:

- Work with a partner who is building a problem space for a separate case
- Review an existing Evo-ED Case and make recommendations for its improvement
- Design learning goals and assessment tools for the Case
- Design and build an inquiry-based Problem Space that is aligned with the Learning Goals and Assessments
- Access the Inquiry Toolbox to find Caselt! or another resource to serve as the basis of the Problem Space

Option 2: Work on construction of a new Evo-ED Case and its associated inquiry-based problem space. Fellows choosing this option will:

- Work with a partner as a team of two
- Consult with the Case Team Members to choose a Case
- Design learning goals and assessment tools for the Case
- Design the framework for the Case
- Design and Build an inquiry-based Problem Space for the Case as described in Option 1 (above)



BioQUEST CASE FELLOWS

- Build Cases and/or Problem Spaces
- Implement and Assess a Case in a Course
- Disseminate Created Materials via Publication or Presentation at a Conference
- Establish SCN Personnel and Research Faculty as Mentors

Mentor

RESEARCH FACULTY

- Consult with Science Case Fellows with Respect to Case Content and the Problem Space
- Implement a Case in Their Own Course
- Mentor Science Case Fellows

Review, revamp, & improve

Consult w/

Evolution of Toxin Resistance in Clams

Evo-ED Cases

Access

Inquiry Toolbox (Caselt! et al.)

Design & Create



Inquiry-based Problem Space

Consisting of

- PowerPoint Slides**
- Games and Sims**

<http://www.stuartwilde.com/2013/03/finding-the-holy-grail/>