

GRANT PROPOSAL COVER PAGE

You can type information directly into the cells below.

	Date	October 31, 2007															
1. Proposal Title "A Number:" Human Dimensions of Biotechnology																	
2. Name of Person submitting Proposal Margaret McLean, Ph.D.																	
3. Phone	408-554-7889	E-Mail mmclean@scu.edu															
FAX	408-554-2373																
4. Type of Grant (Please check one): <input checked="" type="checkbox"/> Bannan Grant <input type="checkbox"/> Dialog and Design Grant																	
5. Provide you 4 – 6 letter Department ID or Program ID. (Not a Fund number!) This information must be provided. (e.g. ECON for Economics Department, LACLNC for Law Clinic.)																	
<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">A S</td> <td style="width: 33%;">A S I S</td> <td style="width: 33%;">Sue Khalipa</td> <td style="width: 10%;"></td> <td style="width: 10%; text-align: right;">4455</td> </tr> <tr> <td>SCU Department ID or Program ID</td> <td></td> <td>Contact Person</td> <td></td> <td>Ext.</td> </tr> <tr> <td colspan="5">* You must have an SCU Affiliation</td> </tr> </table>			A S	A S I S	Sue Khalipa		4455	SCU Department ID or Program ID		Contact Person		Ext.	* You must have an SCU Affiliation				
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6. If your department does not provide administrative assistance to manage grants, we will provide help. Do you need for us to help manage your grant?																	
	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No													
7. Total cost of proposed project	\$		12180.00														
8. Amount of money requested from Bannan Center	\$		3000.00														
9. Amount requested from other sources, if any (please list):																	
Gerald and Sally DeNardo (granted)	\$		5000.00														
Marrkula Center for Applied Ethics (granted)	\$		3000.00														
College of Arts & Sciences Dean's Grant (pending)	\$		1000.00														
10. Please explain briefly what will happen to this project if you do not receive funding from the Bannan Center.																	
<p>Because the majority of the costs are associated with the actual production of the play, i.e., most costs are "hard" costs such as salaries and professional fees, if we do not receive funding from the Bannan Center we will not stage the play and panel discussion.</p>																	
Department Chair or Supervisor Approval	Kirk O. Hanson																
	Name (Type or Print)	Signature	Date														

**Proposed Budget
Bannan Grant**

Name: Margaret McLean, Ph.D.

Proposal Title: "A Number:" Human Dimensions of Biotechnology

I estimate that I will spend the money I am requesting as follows:

<u>PRIME ACCOUNT</u>		<u>AMOUNT</u>
SUPPLY	office, lab, or instruction supplies	950.00
PHONE	telephone charges	
REPROD	copying, printing	1550.00
MAIL	postage, mailing, fax charges	500.00
TRAVEL	domestic transport, lodging or meals	
SPCEVT	food charges, room charges for a special event	
CONTRS	guest speaker honoraria, research subject fees, professional services	
MISC	publications, subscriptions, membership dues	
SWAGE	student wages	
STFSAL	staff salary	
FACSAL	faculty salary	
BENEXP	student, staff, and faculty benefits	
TOTAL		<u>3000.00</u>

Please note:

In the event that this grant is awarded, your department is responsible for any overdrafts associated with this grant.

See Page 3.

Grant Proposal Evaluation Form

Date 10/31/07

Proposal Title "A Number:" Human Dimensions of Biotechnology

Name of Grantee Margaret McLean, Ph.D.

Phone 408-554-7889

Part I: [To be completed for submission along with your original grant proposal.]

List the intended outcomes of this project: (Use additional pages if necessary)

At the end of "A Number:" Human Dimensions of Biotechnology, the audience will be able to

- 1) consider the complexity of new biotechnologies, especially human cloning;
- 2) appreciate the ethical and legal perspectives on new biotechnologies;
- 3) understand better the human dimensions of biotechnology; and
- 4) discuss the inherent assumption that we are unique.

**PENDING APPROVAL OF YOUR GRANT - PARTS II AND III ARE TO BE COMPLETED
AT THE END OF YOUR GRANT PERIOD.**

PROPOSAL BUDGET ACCOUNT NUMBER

14006		RSCH	
Fund	Dept ID	Program	Project ID

Part II

Briefly describe the actual measurable outcomes of this project and the assessment tools you used. (Use additional pages if needed.)

Part III: Describe any other outcomes of your project.

The Gerald and Sally DeNardo Lectureship

Margaret McLean, Ph.D.

BANNAN GRANT PROPOSAL

1. PROJECT TITLE

A Number: Human Dimensions of Biotechnology

2. STATEMENT OF PROBLEM

This pedagogical grant from the Bannan Institute will provide funding for the presentation of the play, *A Number*, by Caryl Churchill, followed by a panel of experts who will reflect on the play from the perspectives of ethics, law, science, and the arts, and invite a dialogue with members of the audience. This play, a cooperative production of the Gerald and Sally DeNardo Lectureship, the Center of Performing Arts, and the Markkula Center for Applied Ethics, explores a series of confrontations between a father and his sons. Churchill invites us to consider the disturbing complexity of a reality not too far in our future where a father—feeling that he failed in his first attempt at raising his son—has the boy cloned so that he could start anew. Determined that the son would not obtain this knowledge, and unaware that additional clones were created, the father is startled when the son uncovers the truth of his past. The play continues with a deeply human exploration of what it means to each of the men to discover that they are clones, exact replicas, just one in a number.

Nobel Laureate and inaugural DeNardo Lectureship speaker Paul Berg notes: “. . . As science probes more deeply into human biology, for example in matters of human development, the extent of genetic determinism or probing at the brain/mind interface, we may challenge long held concerns and deeply held values about what it means to be human. I anticipate there will be increasing resistance to implementing or even pursuing what is discovered. Indeed, there are some who view the acquisition of new knowledge as threatening. There exists among all too many people “what are you opening the door to” paranoia. Paradoxically, while the public clamors for fixes for a host of medical and social ills, it is apprehensive of the science and technology that might provide those fixes.” *A Number* opens up a conversation about the values that guide biotech research and what it means to be human. The possibility of human cloning poses uncomfortable and difficult questions worthy of reflection: What is it to be “parent” and/or “child?” What would it take to be someone other than who you are? Is it nature or nurture—or a bit of both—that makes us who we are?

3. METHODS AND REFLECTION

Staging the play followed by a discussion with a panel of experts will offer a multidisciplinary approach to addressing compelling questions raised by cutting edge biotechnologies, in this case the possibility of human cloning. A profound benefit of the approach is harnessing science, ethics, religious studies, law, and now performing arts, all on the same topic. Pedagogically the format is designed to heighten awareness of the personal and social impact of biotechnology, facilitate conversation about such matters, and provide an engaging space for ethical deliberation among audiences not normally found in a science lecture hall, while at the same time raising these questions in a new way through creative and artistic expression.

The play will be free and open to the public. A number of courses will include the play and panel presentation with a follow-up reflection as part of their spring quarter syllabus.

A Number explores familial relationships and different aspects of relationships between parents and children, as well as the deeper connection we have as humans to the inherent assumption that we are unique. In our efforts to provide an integrated education for our community of scholars, approaching these issues through drama—the arts—allows us to point out implications of such discoveries that are not highlighted by or directly relevant to strictly ethical, scientific, or legal discussions.

The panel following the play will be composed of experts in ethics, science, law, and a member of the cast. Moderated by Margaret McLean, Ph.D., Markkula Center for Applied Ethics Center Assistant Director and Director of Biotechnology and Health Care Ethics, each panelist will be asked to share a two-minute reflection on the play from their own perspective, and then share in a conversation with the audience.

4. TIMETABLE

December 2007 – Center of Performing Arts secures rights for performance; confirms space, actors, crew

January 2008 – DeNardo Lectureship Committee secures panelists

January/February 2008 – Publicity: postcard mailing, flyers

March 15, 2008 – Rehearsals begin

April 3, 2008 – Production of *A Number* and Panel Presentation

5. RELEVANCE TO PAST AND FUTURE RESEARCH OR TEACHING OF APPLICANT

The ethical and societal questions raised by biotechnology are relevant to my teaching both in the Religious Studies Department and the Biology Department. Students in my health care ethics course will attend the production and panel and then engage each other more deeply in classroom discussion the following week. For Professor Leilani Miller's and my course on ethics and biotechnology, a podcast of the panel presentation could be used effectively in the classroom next fall. In addition, this project is especially relevant to my own scholarship which is focused on new biotechnologies and questions of ethics and public policy.

6. RELEVANCE TO BANNAN INSTITUTE CRITERIA FOR FUNDING

The production of Churchill's *A Number* reinforces the Bannan Institute focus on the education of the whole person.

Drama encompasses all aspects of the individual. Encountering *A Number* will require the audience to think about and react to modern biotechnology and human relationships in unfamiliar ways through directly engaging the whole person—the intellectual, aesthetic, moral and spiritual—and forces the audience to rethink assumptions about what makes us human. Drama affects us long after the curtain drops, heightening our moral imagination to make the world a better place for all walks of life.

7. GRANTS OR FELLOWSHIPS RECEIVED DURING PAST THREE YEARS

Honzel Family Foundation Grant – \$100,000 + \$160,000 + \$160,000 = \$420,000

To support research on healthcare ethics and public policy (2005, 2006, 2007)

Bannan Grant – \$750

To support the Bioethics Faculty Reading Group (2007-08)

Faculty Development Grant – \$500 + \$500 = \$1,000

To support the Bioethics Faculty Reading Group (2006-07, 2007-08)

8. PUBLICATION OR OTHER RESULTS OF MOST RECENT INTERNAL GRANT COMPLETED

The completed and on-going grants to support the faculty reading group have heightened the level of discourse on campus around bioethics issues among the faculty and in their classrooms. The positive response to the group has resulted in a follow-up Faculty Development grant for this year.

9. APPROVAL OF YOUR ACADEMIC DEPARTMENT CHAIRPERSON OR SUPERVISOR

Kirk O. Hanson, Executive Director of the Markkula Center for Applied Ethics has approved this proposal with his signature on the Grant Proposal Cover Page.

10. ITEMIZED BUDGET WITH EXPLANATION

<i>A Number: Human Dimensions of Biotechnology – Budget</i>		
Item	Explanation	Budget
Actor 1	Professional (Equity)/staff or faculty supplemental pay + benefits	\$ 2,200
Actor 2	Alumnus stipend	500
Director	Alumnus stipend	500
Stage Manager	Alumnus stipend	400
Assistant Stage Manager	Student stipend	101
Scenic Designer	Faculty supplemental pay + benefits	660
Costume Designer	Faculty supplemental pay + benefits	550
Lighting Designer	Faculty supplemental pay + benefits	660
Electrician 1	Student wages + benefits	76
Electrician 2	Student wages + benefits	76
Technical Director	Faculty supplemental pay + benefits	660
Sound Designer/Load & Strike	Faculty supplemental pay + benefits	660
Run Crew 1/Strike	Student wages + benefits	101
Run Crew 2/Strike	Student wages + benefits	101
Carpenter 1	Student wages + benefits	252
Costumer 1	Student wages + benefits	101
Scenery/Props		500
Costumes		400
Costume Maintenance		50
Royalties		500
Scripts		30
Lighting Supplies		50
Publicity	Postcard Mailing	2,000
Programs		50
Panel	Five panelist stipends @ \$300 each	1,500
CPA Theatre Space	Performance and rehearsal	In-kind
CPA Front of the House Staff	Ticket sales and house management	In-kind
CPA Administrative Production Fees		In-kind
CPA Publicity		In-kind
Total		\$ 12,678