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Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. email	SSN & DOB [partial] (1 page)	4/13/1999	P6/b(6)

COLLECTION:

OA/Box Number:

FOLDER TITLE:

2013-0365-F
wr10700

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.
PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME: 1-APR-1999 09:38:26.00

SUBJECT: Re: Stem Cell

TO: Laura Emmett (CN=Laura Emmett/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Yes. He is signed up to do it. Just wanted to make sure elena knew about
it just in case she wanted to do the meeting.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Laura Emmett (CN=Laura Emmett/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME: 1-APR-1999 08:50:02.00

SUBJECT: Re: Stem Cell

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
she actually already has a eeting then. Can Chris do it instead? Thanks.

Barbara D. Woolley
03/31/99 06:20:11 PM
Record Type: Record

To: Laura Emmett/WHO/EOP
cc:
Subject: Stem Cell

We scheduled a meetning with disease and medical groups to talk about issue of stem cell. For Tuesday, April 13, 3-4, Room 100. Does Elena want to sit in on this meeting?

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME: 1-APR-1999 14:24:22.00

SUBJECT: Re: stem cell

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
Yes. will you be here the Friday before the tuesday meeting? Maybe we could do this together on Friday. I will probley do a briefing paper for chris and mary beth (cc to you and Jenny). Would you want to do the background on this (a couple of paragrahs). We could them forward to Jenny for her to include anything she wants to. Yes. Go ahead and put on their schedules. I need to call hhs today. I did talk to the legis folks and they we're going to check it out too. They agreed with you that it would come on an approp bill if at all anything. Elena has another meeting so. We will then meet with chris at 2:45 prior to the 3:00 meeting on tuesday, april 13. Room 100.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 1-APR-1999 15:00:08.00

SUBJECT: Re: stem cell

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Yes I will be here Friday and yes I will do a couple of background
paragraphs.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 1-APR-1999 13:27:43.00

SUBJECT: stem cell

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
have you/are you going to respond to Devorah's e:mail about scripting this for Chris? Should we talk again about how to brief him on Tuesday before the meeting? I am assuming that he will run it - is that a correct assumption? I think he would just reiterate the President's statements on the importance of stem cell reseach and our hope that the embryo research ban will not be tightened to stop such research. Then what we've heard about GOP activity and ask what others have heard about potential Hill action and efforts to allow stem cell research to proceed.

I believe that Neal Lane is available to attend/drop by the meeting. Can I go ahead and get this on his calendar?

I have been busy clearing Qs and As directed toward Shalala and Varmus following approps hearings. They continue to support and further define the HHS GC's interpretation of the ban to NOT apply to USE of human stem cells. Questions came from Specter (supportive), Kyl (investigatory) and Istook (inflammatory).

I

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Jeffrey M. Smith (CN=Jeffrey M. Smith/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 2-APR-1999 11:00:28.00

SUBJECT: Re: guidance for Joe

TO: Erica S. Lepping (CN=Erica S. Lepping/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

CC: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
Erica -- stem cell guidance will come to you shortly hrom Rachel Levinson
in our office. Encryption guidance is coming to you from NSC.

Erica S. Lepping
04/02/99 09:13:43 AM
Record Type: Record

To: Jeffrey M. Smith/OSTP/EOP, David Y. Stevens/OSTP/EOP
cc:
Subject: guidance for Joe

By 11 please, on:
* Encryption policy (McCain opposed) in NYT
and
* Brain Stem regeneration -- former guidance may be sufficient (NYT)

Thanks.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 2-APR-1999 11:14:42.00

SUBJECT: more on human stem cells

TO: Arthur Bienenstock (CN=Arthur Bienenstock/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Jeffrey M. Smith (CN=Jeffrey M. Smith/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Clifford J. Gabriel (CN=Clifford J. Gabriel/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Erica S. Lepping (CN=Erica S. Lepping/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
HUMAN STEM CELL NEWS UPDATE
APRIL 2, 1999

Context: Today's New York Times and Washington Post carry stories taken from a scientific report in the journal Science dealing with a type of human stem cell found in adult bone marrow. Scientists from Johns Hopkins University and Osiris Therapeutics, a private Baltimore firm, have developed a method for isolating and maintaining stem cells that can then be induced to "differentiate" into bone, cartilage, muscle, ligament, tendon, and fat. The work was supported by Osiris and DARPA.

General
ï¿½ The controversy surrounding recent reports of advances in human stem cell research centered around stem cells that had been isolated from human fetuses and embryos. The stem cells reported today came from the bone marrow of healthy adults, taken with their consent for this purpose.
ï¿½ This is a very interesting development that, if verified, could provide very valuable information about the conditions needed to make stem cells that have the potential to become any one of several cell types (called "pluripotent"cells) commit to becoming a single type that might be used one day to form tissue to replace damaged knee ligaments, for example.
ï¿½ Today's report does not diminish interest in stem cells derived from fetuses or embryos because of the difficulties in finding and isolating the rare stem cells in adults and getting them to differentiate into the hundreds of types of desired cells.

Q. Does this research violate the Congressional ban on embryo research?
A. No. No embryos were used in this research

RECORD TYPE: PRESIDENTIAL (EXTERNAL MAIL)

CREATOR: uucp@whitehouse.gov@INET@EOPMRX

CREATION DATE/TIME: 6-APR-1999 12:39:00.00

SUBJECT: scanner results

TO: binns_m (binns_m@A1@CD) (WHO)
READ:NOT READ

TO: horn_s (horn_s@A1@CD) (WHO)
READ: 6-APR-1999 13:32:09.93

TEXT:
SCANNER RESULTS
---
cancer. you could mabie even grow back limbs in some eyes this
may be death also of abortion i sugust to keep it here in some
eyes it may be killing but what if you were a scared teen of
to day with an unwanted babie. you may say that it is are
fault that we arew having babies but what about the rape

MESSAGE BODY

From nobody@www2.whitehouse.gov Tue Apr 6 12:38:35 1999
Received: (from uucp@localhost) by WhiteHouse.gov (8.7.1/uucp-relay) id MAA03473 for
<president@Whitehouse.GOV>; Tue, 6 Apr 1999 12:38:35 -0400 (EDT)
Received: from storm.eop.gov/198.137.241.51 via smap
Received: from FCPWH-DAEMON by EOP.GOV (PMDF V5.2-29 #34437)
id <01J9POO01YFS0013YJ@EOP.GOV> for president@Whitehouse.GOV; Tue,
6 Apr 1999 12:37:32 EST
Received: from www2.whitehouse.gov ([198.137.240.92])
by EOP.GOV (PMDF V5.2-29 #34437) with ESMTP id <01J9POMSOGWI0014QI@EOP.GOV>
for president@Whitehouse.GOV; Tue, 06 Apr 1999 12:36:34 -0500 (EST)
Received: (from nobody@localhost)
by www2.whitehouse.gov (980427.SGI.8.8.8/970903.SGI.AUTOCF) id MAA15525; Tue,
06 Apr 1999 12:38:02 -0400 (EDT)
Date: Tue, 06 Apr 1999 12:38:02 -0400 (EDT)
From: warren walt bell <capicheno@aol.com>
Subject: Inbound-White_House_WWW_MAIL => PRESIDENT
To: president@Whitehouse.GOV
Errors-to: The Postmaster <postmaster@www2.whitehouse.gov>
Reply-to: warren walt bell <capicheno@aol.com>
Message-id: <199904061638.MAA15525@www2.whitehouse.gov>
Keywords: WWW-Correspondence; ; Other; ; YOUNG PERSON-UNDER 18;
Comments: Forwarded from White House WWW
Comments: Opus One FCP version 2.0 jms/981223

[Connection Information]

CLIENT: 209.7.85.220[209.7.85.220]

BROWSER: Mozilla/4.02 [en] (Win95; U ;Nav)
URL: http://www.whitehouse.gov/WH/kids/html/mail_pres.html

[Sender Information]

PERSONAL-NAME: warren walt bell
AGE:
GRADE: 7
SCHOOL: woodland middle school
EMAIL-ADDRESS: capicheno@aol.com
ORGANIZATION:
RELATIONSHIP:
STREET-ADDRESS: 17243 huntington cr.
CITY: grayslake
STATE-PROVINCE: il
ZIP-CODE: 60030
COUNTRY: usa

[Message Information]

PURPOSE: Other
TOPIC:
AFFILIATION: YOUNG PERSON-UNDER 18
SUBJECT: Message from Kids Page

[Message]

i strongly and eagerly suggust that you over write the law
that makes it a crime to do fetal tissue research as i am sure
that you no there is high cause and sugust from the top
scientist in the usa to do stem cell reaserch. ronald ragon
sined his life away when he signed the bill that made it
illeagal to do so. he died of cancer scientist say and are
almost sure that they could cure so many disorders and even
cancer. you could mabie even grow back limbs in some eyes this
may be death also of abortion i sugust to keep it here in some
eyes it may be killing but what if you were a scared teen of
to day with an unwanted babie. you may say that it is are
fault that we arew having babies but what about the rape
victums would you want those babies if you were that person. a
man was almost elected that was completly against the abortion
of even rape victums make a bill at least that says abortion
is allowed. onestly if you lost a leg wouldn't you want it
back and if yopu were raped wouldn't you feel bad if there was
no abortion even if you put it adoption it would have a
horible life of wondering if you weren't wanted and really you
weren't there may be some need for adoption but save that for
the kids who had there parents killed and no one wants them
there are some places in the us were any orphan that show
academical promis is sent to a speacial home were there is
other people of there way and they are sent to harvard if they
can get in even that is bad. didn't you ever go bang some one
cause it got out of controll and you didn't even no what your
doing or when you no what your doing but you think your

inviceable so you just do it i no this probly won't go to the
president directly but the person who is reading this will you
please send this to him save your kids and there kids from so
much just think what this leter could tern in to your kids and
there kids could live hapier lives i have to go also get rid
of cigerets and just sell in hailers that could save some
people to

warren

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 6-APR-1999 12:40:00.00

ATT BODYPART TYPE:D

TEXT:
RFC-822-headers:
Received: from conversion.pmdf.eop.gov by PMDF.EOP.GOV (PMDF V5.1-9 #29131)
 id <01J9POQPXBE8006VBV@PMDF.EOP.GOV>; Tue, 6 Apr 1999 12:39:43 EST
Received: from storm.eop.gov by PMDF.EOP.GOV (PMDF V5.1-9 #29131)
 with ESMTP id <01J9POQOM5V4006ICO@PMDF.EOP.GOV>; Tue,
 06 Apr 1999 12:39:42 -0500 (EST)
Received: from WhiteHouse.gov ([198.137.241.30])
 by EOP.GOV (PMDF V5.2-29 #34437) with ESMTP id <01J9POQ0O4UC0014IZ@EOP.GOV>;
 Tue, 06 Apr 1999 12:39:09 -0500 (EST)
Received: (from uucp@localhost) by WhiteHouse.gov (8.7.1/uucp-relay)
 id MAA03682; Tue, 06 Apr 1999 12:39:09 -0400 (EDT)
========== END ATTACHMENT 1 ==========

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Kelley L. O'Dell (CN=Kelley L. O'Dell/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME: 8-APR-1999 11:40:25.00

SUBJECT: stem cell mtg. status

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Are we still on for Tuesday? How are invites being handled- do I need to make any calls today/tomorrow?

thanks!!

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME: 8-APR-1999 12:06:13.00

SUBJECT: Re: stem cell mtg. status

TO: Kelley L. O'Dell (CN=Kelley L. O'Dell/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
I've already invited and will get everyone list next week of attendees.
confirmed for 3:00, room 100. She will need to brief chris at 2:45 in his
office.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Kelley L. O'Dell (CN=Kelley L. O'Dell/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME: 8-APR-1999 12:17:47.00

SUBJECT: Re: stem cell mtg. status

TO: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
fyi
---------- Forwarded by Kelley L. O'Dell/WHO/EOP on 04/08/99
12:20 PM ----------

Barbara D. Woolley
04/08/99 12:04:22 PM
Record Type: Record

To: Kelley L. O'Dell/WHO/EOP
cc:
Subject: Re: stem cell mtg. status

I've already invited and will get everyone list next week of attendees.
confirmed for 3:00, room 100. She will need to brief chris at 2:45 in his
office.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME: 9-APR-1999 10:52:17.00

SUBJECT: weekly part 1

TO: Victoria A. Lynch (CN=Victoria A. Lynch/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
AG OUTREACH

Meetings/Events: I put ag leaders in the President,s foreign policy speech on China.

Amplification: I sent out the material on China and WTO to ag groups; Vice President press statement on "mandatory price supports."

Ongoing Activities: Farm Economy and possible upcoming Ag Event w/ Potus.

Next Week: I am working with Cheri and Jay on briefing on China WTO to include Ag groups.

HEALTH OUTREACH

Meetings/Events: .On Patients Bill of Rights event, I worked on finding the real person, getting coalition into the audience and getting leadership into a "meet and greet."

Amplification: I sent material to the health community on the following issues: Kosovo; Cancer Proclamation; Patients Bill of Rights;

Ongoing Activities: Patients Bill of Rights; Medicare; Stem Cell;

Next Week: I have organized a meeting with 14 health care leaders to meet with Mrs. Gore on the white House Conference on Mental Health. I have a White House briefing with 100 members of the American psychiatric Association on Monday. On Tuesday, the White House is convening a meeting with some of the key leaders of the patient and medical community to talk about what their hearing on the Stem Cell issue. On Wednesday, I am working with the Vice President,s office on "Kick Butts Day" event in Ohio.

SENIOR OUTREACH

Meetings/Events: Gene, Chris, Kelly O,dell and myself met with the 5 of the senior and women,s organizations to talk about Medicare and women. They wanted more information on our Medicare plan. Chris would have like to have had them provide more info on their bottom lines. I coordinated 2 conference calls with OMB on Health and Social Security and Medicare.

Organized meeting of key Long Term Care advocates to strategize on issue. Placed 2 senior leaders in the Millennium event for next week.

Amplification: I sent out the following material to the senior community: Kosovo; Patients Bill of Rights;

Ongoing Activities: I am continuing outreach on Social Security, and need to develop a plan for
Medicare Reform with groups. Long Term Care Initiative and Older American,s Act.

Next Week: I am working with Mrs. Clinton,s office to organize a round table in Chicago on a number of issues including women and social security, child care, after care, long term care, and

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Jeffrey M. Smith (CN=Jeffrey M. Smith/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 9-APR-1999 11:14:25.00

SUBJECT: stem cell guidance

TO: Erica S. Lepping (CN=Erica S. Lepping/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

CC: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
Erica -- we're also sending along shortly some DOE press guidance on the
USAT front page story on the patent dispute between a private sector
company and the Lawrence Livermore National Laborotory.

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D78]MAIL45830531W.136 to ASCII,
The following is a HEX DUMP:
========== END ATTACHMENT 1 ==========

HUMAN STEM CELL RESEARCH
April 9, 1999

CONTEXT: Yesterday, Harold Varmus convened an ad hoc panel in a public forum to help NIH develop an oversight process and guidelines for the ethical use of human stem cells in federally-funded research. Accounts of the panel's deliberations ran in today's New York Times and Washington Post. OSTP staff attended the meeting and emphasizes that the guidelines discussed on Thursday are a first draft. Once the panel finishes their draft guidelines, NIH plans to publish them for a 60-day public comment period. A final version must be approved by Dr. Varmus' advisory committee before he will consider moving ahead to fund human stem cell research. During a public comment session, a representative of the House Pro-Life Caucus reiterated earlier Congressional statements that Federal funding of human stem cell research violates the Congressional ban on human embryo research.

General

The recent isolation of human stem cells offers great promise in advancing biomedical research for a large number of devastating conditions, including diabetes, cardiovascular disease, neurodegenerative disorders such as Parkinson's disease and Alzheimer's, burns and spinal cord injuries, and cancer.

In January 1999, the HHS General Counsel Harriet Rabb rendered an opinion that federally funded research on human pluripotent stem cells is permitted, because stem cells do not have the capacity to develop into human beings and as such are not embryos.

Q.Now that this panel has met, is NIH going to start funding human stem cell research?
A. No. Dr. Varmus has stated that there are still several steps that must be taken before NIH can put in place a set of guidelines as part of an oversight process that will ensure that research use of human stem cells is carried out in a ethically sound manner.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Erica S. Lepping (CN=Erica S. Lepping/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME: 9-APR-1999 09:09:44.00

SUBJECT: guidance for Joe

TO: Jeffrey M. Smith (CN=Jeffrey M. Smith/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: David Y. Stevens (CN=David Y. Stevens/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

CC: Elizabeth A. Gregory (CN=Elizabeth A. Gregory/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
Can we get guidance again on our position on stem cell research, given
today's NYT story on drafting rules...thanks. By 11 please.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:12-APR-1999 19:26:28.00

SUBJECT: Stem Cell Meeting

TO: Joseph D. Ratner (CN=Joseph D. Ratner/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Would Mary Beth want to be briefed on this prior to the meeting at 3:00 say 2:45. We could get Chris Jennings, Jenny Luray and Rachell Levinson, OSTP, all together? Chris wanted to be briefed at 2:45 so we could combine briefing prior to the meeting.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Kelley L. O'Dell (CN=Kelley L. O'Dell/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:12-APR-1999 10:35:07.00

SUBJECT: additions to next week's calendar

TO: Ilia V. Velez (CN=Ilia V. Velez/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

CC: Kelley L. O'Dell (CN=Kelley L. O'Dell/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

CC: Sondra L. Seba (CN=Sondra L. Seba/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

CC: Robin Leeds (CN=Robin Leeds/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

CC: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Additions:
for Barbara- USA Accounts event 2:30 pm on Wednesday

Meeting with groups on stem cell research, 3 pm Tuesday, (Jenny and Barbara)

Friday: child care groups outreach meeting (women's office), time tba

Friday: meeting with groups on contraceptive coverage, 10:00 (Jenny)

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:12-APR-1999 17:14:23.00

SUBJECT: Re: Stem Cell Meeting (documentation)

TO: Joseph D. Ratner (CN=Joseph D. Ratner/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Yes. I will get to you.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:12-APR-1999 08:29:52.00

SUBJECT: Stem Cell - how does this look to you? Please edit at will

TO: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TO: Kelley L. O'Dell (CN=Kelley L. O'Dell/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
I will add list of invitees when I can.
---------- Forwarded by Barbara D. Woolley/WHO/EOP on 04/12/99
08:29 AM ----------

Rachel E. Levinson 04/09/99 02:42:49 PM

Record Type: Record

To: Barbara D. Woolley/WHO/EOP
cc:
Subject: how does this look to you? Please edit at will

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D67]MAIL419757412.136 to ASCII,
The following is a HEX DUMP:

Human Stem Cell Research
April 13, 1999
OEOB, Room 100

Annotated Agenda

1. **Opening Remarks** — Chris Jennings

Welcome. Describe point in *Weekly Standard* that GOP may be planning to raise human stem cell research and tightening of the Congressional ban on embryo research as part of anti-choice movement. We convened this meeting to convey this information, to touch base once again with groups who are following this issue and have been helpful to us in the past, and to hear what they have been working on to ensure that important biomedical research is not constrained unnecessarily.

2. **Introductions** — Attendees

3. **Administration's Position** — Chris Jennings

The President has already stated very clearly the "promising significant medical benefits" of human stem cell research (Nov. 14 letter to NBAC). We have been working very closely with Harold Varmus and others at HHS to ensure that such research would be carried out under appropriate oversight and in accordance with the highest ethical standards.

4. **Brief Reports on Status of Relevant Activities**

Patient advocacy groups and scientific and professional societies met in February to discuss legislative strategy for forestalling a tightening of the ban on federally-funded human embryo research. While some advocate using stem cells as tool for attacking the ban altogether (AAMC and American Society for Reproductive Medicine), others are uncomfortable with this approach and fear that it might provoke a backlash in the form of a more restrictive ban via HHS approps.

- **NIH Ad Hoc Advisory Panel** — Lana Skirboll

On April 8, Harold Varmus convened an ad hoc panel in a public forum to help NIH develop an oversight process and guidelines for the ethical use of human stem cells in federally-funded research. This meeting was a first step in a deliberative process. Once the panel finishes their draft guidelines, NIH plans to publish them for a 60-day public comment period. A final version must be approved by Dr. Varmus' advisory committee before he will consider moving ahead to fund human stem cell research. During a public comment session, a representative of the House Pro-Life Caucus reiterated earlier Congressional statements that Federal funding of human stem cell research violates the Congressional ban on human embryo research.

- **National Bioethics Advisory Commission** — Rachel Levinson

The Commission is preparing a report to the President in response to his Nov. 14 request and has reached a degree of consensus in support of the *use* of human stem cells derived from aborted fetuses and from embryos left over from infertility treatment. There is concern on the part of at least one commissioner regarding HHS' determination that the embryo research

ban does not apply to use of stem cells. Alex Capron agrees with this conclusion but feels that *use* of the cells cannot be decoupled from *derivation* of the cells from embryos. The Commission hopes to have a report completed around June or July.

5. Report on Congressional Activity and Meetings Attendees

Several groups have been active in meetings with Hill staff.

Attachments

1. POTUS Letter to NBAC (Nov. 14, 1998)
2. NIH Fact Sheet on Stem Cell Research
3. Congressional letters against stem cell research (Feb. 11, 23, April 8)
4. Professional Societies' letters in support of stem cell research (Feb. 19, March 4)
5. Harold Shapiro's letter to Harold Varmus (March 9)

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Joseph D. Ratner (CN=Joseph D. Ratner/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:12-APR-1999 19:14:52.00

SUBJECT: Question

TO: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

CC: Kelley L. O'Dell (CN=Kelley L. O'Dell/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Jenny------Just wondering if your attending the Human Stem Cell meeting
tomorrow in Room 100 at 3:00pm. Thanks.
jdr

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:12-APR-1999 21:11:08.00

SUBJECT: Updated - Agenda - Stem Cell - list of participants

TO: Devorah R. Adler (CN=Devorah R. Adler/OU=OPD/O=EOP @ EOP [OPD])
READ:UNKNOWN

TO: Lisa M. Kountoupes (CN=Lisa M. Kountoupes/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TO: Kelley L. O'Dell (CN=Kelley L. O'Dell/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TO: Tracey E. Thornton (CN=Tracey E. Thornton/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TO: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

CC: Laura Emmett (CN=Laura Emmett/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Human Stem Cell Research
April 13, 1999
OEOB, Room 100

Agenda

1. Opening
Remarks
Chris Jennings
Welcome. Describe point in Weekly Standard that GOP may be planning to raise human stem cell research and tightening of the Congressional ban on embryo research as part of anti-choice movement. We convened this meeting to convey this information, to touch base once again with groups who are following this issue and have been helpful to us in the past, and to hear what they have been working on to ensure that important biomedical research is not constrained unnecessarily.

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Jess Melanson, March of Dimes

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Eleanor Kerr, SmithKline Beecham

Ida Chow, Society for Developmental Biology
Nina Weinberg, National Health Council
Pamela Dougherty, American Cancer Society
Sean Tipton, American Society for Reproductive Medicine
Daniel Perry, Alliance for Aging Research
Lawrence Soler, JDF International
Sara Milo, NCCR
Timothy Leshan, American Society for Cell Biology
Dave Moore, Association of American Medical Colleges
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RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:12-APR-1999 08:31:15.00

SUBJECT: Re: Stem Cell - how does this look to you? Please edit at will

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Thanks Barbara. I'll look it over today.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:12-APR-1999 19:24:14.00

SUBJECT: Stem Cell Meeting Tomorrow, 3:00 pm, Room 100

TO: Tracey E. Thornton (CN=Tracey E. Thornton/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TO: Lisa M. Kountoupes (CN=Lisa M. Kountoupes/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

CC: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
Chris is hosting meeting tomorrow at 3:00 pm, Room 100, with patient and medical groups to get update on what they are hearing on stem cell issue. Can you attend? If not, should we pass along any info from legis perspective on this issue? should the groups be focused on H/S members? Please let me know.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:12-APR-1999 21:11:07.00

SUBJECT: Brief Mary Beth - Stem Cell

TO: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TO: Kelley L. O'Dell (CN=Kelley L. O'Dell/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
Can you participate in a 5 min brief with mary beth around noon on tuesday. Please let me know. Thanks. She has another meeting at 2:45 w/ chris.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Lisa M. Kountoupes (CN=Lisa M. Kountoupes/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:12-APR-1999 21:10:45.00

SUBJECT: Re: Stem Cell Meeting Tomorrow, 3:00 pm, Room 100

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

CC: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

CC: Tracey E. Thornton (CN=Tracey E. Thornton/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
i can and i am so glad you emailed me bec. i had Stem Cell on my calendar and did not know where or what the deal was! see you then. i will try to get a read from some folks inthe am on the house side to report on.

Barbara D. Woolley
04/12/99 07:24:43 PM
Record Type: Record

To: Lisa M. Kountoupes/WHO/EOP, Tracey E. Thornton/WHO/EOP
cc: Rachel E. Levinson/OSTP/EOP
Subject: Stem Cell Meeting Tomorrow, 3:00 pm, Room 100

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RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:12-APR-1999 21:11:02.00

SUBJECT: Re: Stem Cell Meeting Tomorrow, 3:00 pm, Room 100

TO: Lisa M. Kountoupes (CN=Lisa M. Kountoupes/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
great, see you then.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-APR-1999 10:23:39.00

SUBJECT: Re: Brief Mary Beth - Stem Cell

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
We are going to brief mary beth at noon and chris at 2:45.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-APR-1999 20:16:09.00

SUBJECT: stem cell, etc.

TO: Mary E. Cahill (CN=Mary E. Cahill/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Meeting this afternoon with medical groups on possible stem cell research ban went well.
The core pro-choice lobbyists asked to meet with me this week to discuss contraceptive coverage. They are coming to the Women's Office Friday at 10:00. Because I did this issue for Nita last year, it will be an informal discussion and I'll be the only White House staff there. It's the lobbying staff, not Kate or Gloria, etc.

Chris Jennings and I are going to submit a memo to POTUS recommending that we endorse the private insurance contraceptive coverage bill (in fact, I'm finally snatching some time tonight to write it). We probably won't hear back before the Friday meeting but I can tell them that I'm pretty confident we'll endorse. I'll also let them know about our meeting on stem cell research today. Of course, you are welcome to come. You can just come down and say hello or stay for the whole meeting, whatever you prefer.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Tracey E. Thornton (CN=Tracey E. Thornton/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-APR-1999 10:44:38.00

SUBJECT: Updated - Agenda - Stem Cell - list of participants

TO: Caroline R. Fredrickson (CN=Caroline R. Fredrickson/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
you may already know about this but if not do you want it otherwise it's goes in the health basket.
---------- Forwarded by Tracey E. Thornton/WHO/EOP on 04/13/99 10:43 AM ----------

Barbara D. Woolley
04/12/99 09:11:13 PM
Record Type: Record

To: See the distribution list at the bottom of this message
cc: Laura Emmett/WHO/EOP
Subject: Updated - Agenda - Stem Cell - list of participants

Human Stem Cell Research
April 13, 1999
OEOB, Room 100

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Message Sent
To:_____
Jennifer M. Luray/WHO/EOP
Kelley L. O'Dell/WHO/EOP
Rachel E. Levinson/OSTP/EOP
Lisa M. Kountoupes/WHO/EOP
Tracey E. Thornton/WHO/EOP
Devorah R. Adler/OPD/EOP

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-APR-1999 20:56:47.00

SUBJECT: stem cell

TO: clare.coleman (clare.coleman @ mail.house.gov @ inet [UNKNOWN])
READ:UNKNOWN

TEXT:
Please call me tomorrow about stem cells. want to share something with you that came out of our meeting with the medical groups today. Good time may be between 10 and 2. Thanks

Withdrawal/Redaction Marker
Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. email	SSN & DOB [partial] (1 page)	4/13/1999	P6/b(6)

COLLECTION:

OA/Box Number:

FOLDER TITLE:

2013-0365-F
wr10700

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.
PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).
RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME:13-APR-1999 09:52:48.00

SUBJECT: Re: Brief Mary Beth - Stem Cell

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Here is clearance info for Harley Thomas
dob:
ssn: P6/(b)(6)

[001]

Also, Joanne Tornow from my office will attend. I think she should also come to the pre-brief if that doesn't make it too big. Did you say that Mary Beth has another meeting with Chris at 2:45?

I can do noon but would have to change something else. Is that firm? In room 21?

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-APR-1999 12:52:12.00

SUBJECT: stem cell meeting at 3 today - updated agenda and list of attendees

TO: David W. Beier (CN=David W. Beier/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

TO: Sarah A. Bianchi (CN=Sarah A. Bianchi/O=OVP @ OVP [UNKNOWN])
READ:UNKNOWN

TEXT:
Just wanted you to have.
---------- Forwarded by Barbara D. Woolley/WHO/EOP on 04/13/99 12:52 PM ----------

Rachel E. Levinson 04/13/99 12:47:49 PM

Record Type: Record

To: Barbara D. Woolley/WHO/EOP, Jennifer M. Luray/WHO/EOP, Devorah R. Adler/OPD/EOP
cc:
Subject: stem cell meeting at 3 today - updated agenda and list of attendees

Human Stem Cell Research
April 13, 1999, 3 p.m.
OEOB, Room 100

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Nina Weinberg, National Health Council
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Daniel Perry, Alliance for Aging Research
Lawrence Soler, JDF International
Sara Milo, NCCR
Timothy Leshan, American Society for Cell Biology
Dave Moore, Association of American Medical Colleges
Karen Hendricks, American Academy of Pediatrics
Harley Thomas, Paralyzed Vets Association
Pat White, American Association of Immunologists
Sam Turner, Geron

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-APR-1999 10:29:55.00

SUBJECT: Re: Brief Mary Beth - Stem Cell

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
122.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Devorah R. Adler (CN=Devorah R. Adler/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME:13-APR-1999 16:33:25.00

SUBJECT: POTUS Qs & As

TO: Laura Emmett (CN=Laura Emmett/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
here you go
---------- Forwarded by Devorah R. Adler/OPD/EOP on 04/13/99 04:35 PM ----------

Joanne S. Tornow
04/13/99 02:52:10 PM
Record Type: Record

To: Christopher C. Jennings/OPD/EOP
cc: Devorah R. Adler/OPD/EOP
Subject: POTUS Qs & As

These are the Qs and As that we prepared for POTUS meeting with American Society of Newspaper Editors

ú genetics/new technology, vision of the future, issues of research ethics (OSTP)

Q. What new developments have been made in biomedical research?
A. The Human Genome Project continues to produce huge amounts of new information about the genetic makeup of people, animals, and microorganisms. In fact, just last month, project leaders at NIH and DOE announced that they are moving up their deadline for completing human genome sequencing to 2003, and will produce a working draft by next spring. Understanding genetic disease at its roots will help us move from an era in which doctors merely treat symptoms to the next century when we can look forward to new tools to prevent disease or tailor treatments more effectively to meet each patient's needs.

We also have to respect the power of new technology and use it responsibly. My Administration is working to ensure that genetic information is not used to put people at risk of losing their health insurance or their jobs. We also need to shorten the distance between the laboratory and the bedside. One way of doing this is by working hand-in-hand with the private sector to encourage biotechnology and pharmaceutical companies to take our research results and turn them into new ways to attack disease. Extending the R&E tax credit will help them take this step. New leadership at the Food and Drug Administration will

keep us on track in approving safe and effective health care products as rapidly as possible. And of course I want to underscore my support for biomedical research by reiterating my commitment to increase the NIH budget by 50% by the year 2003.

Q. What other new technologies do you think will have a major impact on public health?
A. Another new technology that holds tremendous promise for treating and potentially curing many of our most debilitating diseases is the development of human stem cell therapies. Parkinson,s disease, diabetes, heart disease, spinal cord injuries, even cancer, all of which take a tremendous toll on us now, could become curable in a matter of years. But, even as we consider the enormous potential medical benefits this type of research could produce, we have to ensure that society,s ethical concerns are considered as well. That is why I have asked the National Bioethics Advisory Commission to review thoroughly the medical and ethical issues associated with human stem cell research. They are actively engaged in that review right now and I look forward to receiving their report. I continue to believe that our future depends upon the bold pursuit of new discoveries in science and technology, but that we must also always be guided by our commitment to human values, to the good of society, and to our basic sense of right and wrong.

Q. What is your current position on using cloning technology to produce a human being?
A. As I said in 1997, it is morally unacceptable for anyone in either the public or private sector to use cloning technology to produce a human being. The moratorium on cloning a human that I declared is still in place, and to my knowledge is being respected in both the public and private sectors. Let me make clear, however, that this is a separate issue from the routine use of cloning techniques for reproducing cells, tissues, DNA molecules and microorganisms as part of laboratory research. Those procedures are integral to modern biomedical research, and are in no way affected by the moratorium.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Caroline R. Fredrickson (CN=Caroline R. Fredrickson/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-APR-1999 11:21:06.00

SUBJECT: Updated - Agenda - Stem Cell - list of participants

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
do you have a time for the program?
---------- Forwarded by Caroline R. Fredrickson/WHO/EOP on
04/13/99 11:23 AM ----------

Tracey E. Thornton
04/13/99 10:45:06 AM
Record Type: Record

To: Caroline R. Fredrickson/WHO/EOP
cc:
Subject: Updated - Agenda - Stem Cell - list of participants

you may already know about this but if not do you want it otherwise it's
goes in the health basket.
---------- Forwarded by Tracey E. Thornton/WHO/EOP on 04/13/99
10:43 AM ----------

Barbara D. Woolley
04/12/99 09:11:13 PM
Record Type: Record

To: See the distribution list at the bottom of this message
cc: Laura Emmett/WHO/EOP
Subject: Updated - Agenda - Stem Cell - list of participants

Human Stem Cell Research
April 13, 1999
OEOB, Room 100

Agenda

1. Opening
Remarks
Chris Jennings
Welcome. Describe point in Weekly Standard that GOP may be planning to
raise human stem cell research and tightening of the Congressional ban on

embryo research as part of anti-choice movement. We convened this meeting to convey this information, to touch base once again with groups who are following this issue and have been helpful to us in the past, and to hear what they have been working on to ensure that important biomedical research is not constrained unnecessarily.

2.
Introductions
Attendees

3. Administration's
Position
Chris Jennings
The President has already stated very clearly the "promising significant medical benefits" of human stem cell research (Nov. 14 letter to NBAC). We have been working very closely with Harold Varmus and others at HHS to ensure that such research would be carried out under appropriate oversight and in accordance with the highest ethical standards.

4. Brief Reports on Status of Relevant Activities
Patient advocacy groups and scientific and professional societies met in February to discuss legislative strategy for forestalling a tightening of the ban on federally-funded human embryo research. While some advocate using stem cells as tool for attacking the ban altogether (AAMC and American Society for Reproductive Medicine), others are uncomfortable with this approach and fear that it might provoke a backlash in the form of a more restrictive ban via HHS approps.

NIH Ad Hoc Advisory
Panel
Lana Skirboll
On April 8, Harold Varmus convened an ad hoc panel in a public forum to help NIH develop an oversight process and guidelines for the ethical use of human stem cells in federally-funded research. This meeting was a first step in a deliberative process. Once the panel finishes their draft guidelines, NIH plans to publish them for a 60-day public comment period. A final version must be approved by Dr. Varmus' advisory committee before he will consider moving ahead to fund human stem cell research. During a public comment session, a representative of the House Pro-Life Caucus reiterated earlier Congressional statements that Federal funding of human stem cell research violates the Congressional ban on human embryo research.

National Bioethics Advisory
Commission Rachel Levinson
The Commission is preparing a report to the President in response to his Nov. 14 request and has reached a degree of consensus in support of the use of human stem cells derived from aborted fetuses and from embryos left over from infertility treatment. There is concern on the part of at least one commissioner regarding HHS' determination that the embryo research ban does not apply to use of stem cells. Alex Capron agrees with this conclusion but feels that use of the cells cannot be decoupled from derivat ion of the cells from embryos. The Commission hopes to have a report completed around June or July.

5. Report on Congressional Activity and
Meetings Attendees
Several groups have been active in meetings with Hill staff.

6. List of Attendees

Robyn Lipner, Bass and Howes Inc.
Charles Ludlam, BIO
Jess Melanson, March of Dimes

Mara Guarducci, Pharmaceurical Research and Manufacturers of America
Eleanor Kerr, SmithKline Beecham
Ida Chow, Society for Developmental Biology
Nina Weinberg, National Health Council
Pamela Dougherty, American Cancer Society
Sean Tipton, American Society for Reproductive Medicine
Daniel Perry, Alliance for Aging Research
Lawrence Soler, JDF International
Sara Milo, NCCR
Timothy Leshan, American Society for Cell Biology
Dave Moore, Association of American Medical Colleges
Karen Hendricks, American Academy of Pediatrics
Harley Thomas, Paralyzed Vets Association
Pat White, American Association of Immunologists
Sam Turner

Attachments

POTUS Letter to NBAC (Nov. 14, 1998)
NIH Fact Sheet on Stem Cell Research
Congressional letters against stem cell research (Feb. 11, 23, April 8)
Professional Societies' letters in support of stem cell research (Feb. 19, March 4)
Harold Shapiro's letter to Harold Varmus (March 9)

Message Sent
To:
Jennifer M. Luray/WHO/EOP
Kelley L. O'Dell/WHO/EOP
Rachel E. Levinson/OSTP/EOP
Lisa M. Kountoupes/WHO/EOP
Tracey E. Thornton/WHO/EOP
Devorah R. Adler/OPD/EOP

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-APR-1999 14:06:10.00

SUBJECT: Re: employee gym

TO: Joseph D. Ratner (CN=Joseph D. Ratner/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
thank you.
Also, I suggested that Mary Beth did not need to come to the stem cell meeting today, unless she wanted to meet the patient/medical groups we deal with. Barbara was going to check with her.

Joseph D. Ratner
04/13/99 01:21:54 PM
Record Type: Record

To: Jennifer M. Luray/WHO/EOP
cc: Kelley L. O'Dell/WHO/EOP
Subject: Re: employee gym

Jennifer-----You should contact Dan Holt in room 1. x65105. Thanks.

jdr

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME:13-APR-1999 10:25:50.00

SUBJECT: Re: Brief Mary Beth - Stem Cell

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
fine - where is the noon for marybeth?

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-APR-1999 11:34:39.00

SUBJECT: Re: Updated - Agenda - Stem Cell - list of participants

TO: Caroline R. Fredrickson (CN=Caroline R. Fredrickson/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
3:00, 2:45 brief in chris jennings office. room 100

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-APR-1999 16:58:53.00

SUBJECT: stem cell

TO: Christopher C. Jennings (CN=Christopher C. Jennings/OU=OPD/O=EOP @ EOP [OPD])
READ:UNKNOWN

TEXT:
You did a great job. I'm hoping to pick up some of your diplomatic style!

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME:13-APR-1999 12:47:29.00

SUBJECT: stem cell meeting at 3 today - updated agenda and list of attendees

TO: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TO: Devorah R. Adler (CN=Devorah R. Adler/OU=OPD/O=EOP @ EOP [OPD])
READ:UNKNOWN

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Human Stem Cell Research
April 13, 1999, 3 p.m.
OEOB, Room 100

Agenda

1.
Introductions
Attendees
2. Opening
Remarks
Chris Jennings

Jennifer Luray
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Charles Ludlam, BIO
Jess Melanson, March of Dimes
Mara Guarducci, Pharmaceutical Research and Manufacturers of America
Victoria Blattner, Merck
Ida Chow, Society for Developmental Biology
Nina Weinberg, National Health Council
Pamela Dougherty, American Cancer Society
Sean Tipton, American Society for Reproductive Medicine
Daniel Perry, Alliance for Aging Research
Lawrence Soler, JDF International
Sara Milo, NCCR
Timothy Leshan, American Society for Cell Biology
Dave Moore, Association of American Medical Colleges
Karen Hendricks, American Academy of Pediatrics
Harley Thomas, Paralyzed Vets Association
Pat White, American Association of Immunologists
Sam Turner, Geron

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Tracey E. Thornton (CN=Tracey E. Thornton/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-APR-1999 12:02:41.00

SUBJECT: Stem Cell Meeting Tomorrow, 3:00 pm, Room 100

TO: Caroline R. Fredrickson (CN=Caroline R. Fredrickson/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TO: Janet Murguia (CN=Janet Murguia/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
---------- Forwarded by Tracey E. Thornton/WHO/EOP on 04/13/99 12:02 PM ----------

Barbara D. Woolley
04/12/99 07:24:43 PM
Record Type: Record

To: Lisa M. Kountoupes/WHO/EOP, Tracey E. Thornton/WHO/EOP
cc: Rachel E. Levinson/OSTP/EOP
Subject: Stem Cell Meeting Tomorrow, 3:00 pm, Room 100

Chris is hosting meeting tomorrow at 3:00 pm, Room 100, with patient and medical groups to get update on what they are hearing on stem cell issue. Can you attend? If not, should we pass along any info from legis perspective on this issue? should the groups be focused on H/S members? Please let me know.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-APR-1999 20:50:01.00

SUBJECT: Good job on stem cell!

TO: Christopher C. Jennings (CN=Christopher C. Jennings/OU=OPD/O=EOP @ EOP [OPD])
READ:UNKNOWN

TEXT:

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:15-APR-1999 17:26:41.00

SUBJECT: Stem Cell

TO: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

CC: Kelley L. O'Dell (CN=Kelley L. O'Dell/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Did you send Mary Beth and Ann Lewis an report/update on meeting? Chris and I ran into Elaine and she thought both of them would want a follow up email. Let me know if you want me to follow up. I assume you did already. Thanks.

I talked to Dan today, he said he would keep us posted on when they announce the broad coalition.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:15-APR-1999 17:58:15.00

SUBJECT: Re: Stem Cell

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
I told Ann about it in person and told Mary Beth about it in a longer email on the small meeting I am having tomorrow with the choice groups on contraceptive coverage. Since this is an informal meeting with the folks I worked with last year on the issue, I didn't include others from the building. However, following up on our earlier internal choice meeting, once the POTUS officially supports contraceptive coverage, we will do a larger meeting with the choice advocates, medical and religious groups we had at the Feb meeting with FLOTUS and VPOTUS. Hope you had a good night's rest. You deserved it!

Barbara D. Woolley
04/15/99 05:27:08 PM
Record Type: Record

To: Jennifer M. Luray/WHO/EOP
cc: Kelley L. O'Dell/WHO/EOP
Subject: Stem Cell

Did you send Mary Beth and Ann Lewis an report/update on meeting? Chris and I ran into Elaine and she thought both of them would want a follow up email. Let me know if you want me to follow up. I assume you did already. Thanks.

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RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:15-APR-1999 18:11:42.00

SUBJECT: Re: Stem Cell

TO: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
Thanks.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:16-APR-1999 10:37:18.00

SUBJECT: weekly

TO: Victoria A. Lynch (CN=Victoria A. Lynch/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
WTO/CHINA - AGRICULTURE

Agriculture groups applaud Administrations efforts on China-WTO. However, they remain concerned as to what happens with no agreement.

PATIENTS BILL OF RIGHTS

Groups representing the Patients Bill of Rights were thrilled with your participation at the Philadelphia event. Judy Lichtman, Ron Pollack, Fran Visco and Beverly Malone loved your acknowledgment of them in particular.

STEM CELL

Patients and industry groups meet with Chris Jennings, Jenny Luray, Barbara Woolley, and OSTP to talk about GOP planning to raise human stem cell research and tightening of the Congressional ban on embryo research as part of anti-choice movement. They are developing message on this issue and will announce a broad coalition in May.

SENIOR OUTREACH

The Leadership Council of Aging Organizations writes letter in response to the Republican Budget. The letter states that the Republican budget will not protect seniors or aging programs and was in response to AARP,s "supportive, but not endorsing" letter to the Republican budget.

USA SAVINGS ACCOUNTS

OPL works with NEC to roll out your USA Savings Accounts proposal. We held conference calls with business, labor, women and senior communities to brief them on the proposal.

SENIOR OUTREACH

Meetings: I helped locate real people for Mrs. Clinton,s Families Round table in Chicago - Long term care and women and social security stories. Found real people for USA Savings Accounts event; set up conference calls with Gene Sperling on roll out; audience;

Amplification: I sent the following information: Patients Bill of Rights; Budget; Kosovo; USA Savings Accounts;

Ongoing Activities: Continue to work on Older American,s Act; Long Term Care Initiative; Medicare Reform;

Next Week: Meeting with VPOTUS office with AFSCME on Senior Outreach; putting together names for White House Conference on Mental Health; John Podesta meeting with AARP;

HEALTH CARE OUTREACH

Meetings: I attended the following meetings: Mrs. Gore met with 14 health care leaders to talk about the White House Conference on Mental Health; organized meeting with patient and industry on stem cell issue; worked on Kick Butts Day event with Vice President,s office.

Amplification: I sent the following information: Tobacco Statement; Budget Statement; Kosovo Information; Patients Bill of Rights; USA Savings Accounts;

Ongoing Activities: Continue to work on Patients Bill of Rights; Tobacco State Money; CHIPs; Medicare Reform.

Next Week: Putting together names for White House Conference on Mental Health.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:16-APR-1999 17:55:57.00

SUBJECT: stem cell coalition

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
Call me to talk about this. I talked to ACS today, their ok. We have good relationships with many of those groups including heart, alzheimers, ms, (not arthritus) and w/ christopher reeve. lets talk.
---------- Forwarded by Barbara D. Woolley/WHO/EOP on 04/16/99 05:54 PM ----------

dperry @ AGINGRESEARCH.ORG
04/16/99 04:44:00 PM
Record Type: Record

To: Barbara D. Woolley
cc:
Subject: stem cell coalition

Rachel,
I found your email address, at last, so I can pass on these thoughts on major patient groups where we need help in getting commitments to the stem cell coalition. We currently have 15 groups signed on, the latest being the
Sprina Bifuda Association Foundation. I believe you have the others on a list.

The top targets still outstanding are: 1)American Heart Association; 2) American Cancer Society; 3) Alzheimer Association; Arthritis Foundation; and
the Multiple Sclerosis Society. These are all high profile, important patient groups for diseases that likely will be approached far more effectively because of what we will learn from stem cell research.

It was also just announced this week that two groups have merged to form the
Christopher Reeve Paralysis Foundation. I don't have to tell you how valuable that name is. Two other groups I have not mentioned because I am sure they will agree to the coalition without further pressure are the March
of Dimes Birth Defects Foundation and the Paralyzed Veterans of America.

I would be happy to talk with anyone about the status of approaches to these

groups. Calls from the right people in the Clinton Administration could be
decisive in bringing these names to our coalition.

Incidentally, I just learned that our message testing strategy will be in the field next Thursday with two focus groups in Lansing, MI, followed the next Wednesday by two groups in Nashville, TN.

Let me know how I can support your good efforts.

--Dan

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
RFC-822-headers:
Received: from conversion.pmdf.eop.gov by PMDF.EOP.GOV (PMDF V5.1-9 #29131)
id <01JA3YBXFTCG001YWI@PMDF.EOP.GOV> for woolley_B@a1.eop.gov; Fri,
16 Apr 1999 17:45:15 EST
Received: from storm.eop.gov by PMDF.EOP.GOV (PMDF V5.1-9 #29131)
with ESMTP id <01JA3YBTSIAO0023VR@PMDF.EOP.GOV> for woolley_B@a1.eop.gov; Fri,

16 Apr 1999 17:45:09 -0500 (EST)
Received: from AGINGRESEARCH.ORG ([207.152.129.34])
by EOP.GOV (PMDF V5.2-29 #34437) with ESMTP id <01JA3YB53DH8000KZV@EOP.GOV>
for woolley_B@a1.eop.gov; Fri, 16 Apr 1999 17:44:35 -0500 (EST)
Received: from DAN (dperry@AGINGRESEARCH.ORG); Fri, 16 Apr 1999 17:56:00 -0400

X-Mailer: ExpressIT! 2000 (Hydra) SMTP v3.11
X-WM-Posted-At: AGINGRESEARCH.ORG; Fri, 16 Apr 99 17:56:00 -0400
X-EXP32-SerialNo: 00003942
========== END ATTACHMENT 1 ==========

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Lisa M. Kountoupes (CN=Lisa M. Kountoupes/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:16-APR-1999 20:19:22.00

SUBJECT: Re: Updated - Agenda - Stem Cell - list of participants

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
sorry i missed this i got stuck on the hill how did it go? it sounds like
we are in ok shape inthe house authorizing committee for what it is worth

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: dperry@AGINGRESEARCH.ORG@INET@LNGTWY (
dperry@AGINGRESEARCH.ORG@INET@LNGTWY [UNKNOWN])

CREATION DATE/TIME:16-APR-1999 17:50:59.00

SUBJECT: stem cell coalition

TO: Barbara D. Woolley@eop (Barbara D. Woolley@eop [WHO])
READ:UNKNOWN

TEXT:
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ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
RFC-822-headers:

Received: from conversion.pmdf.eop.gov by PMDF.EOP.GOV (PMDF V5.1-9 #29131)
id <01JA3YBXFTCG001YWI@PMDF.EOP.GOV> for woolley_B@a1.eop.gov; Fri,
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Received: from DAN (dperry@AGINGRESEARCH.ORG); Fri, 16 Apr 1999 17:56:00 -0400

X-Mailer: ExpressIT! 2000 (Hydra) SMTP v3.11
X-WM-Posted-At: AGINGRESEARCH.ORG; Fri, 16 Apr 99 17:56:00 -0400
X-EXP32-SerialNo: 00003942
========== END ATTACHMENT 1 ==========

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME:22-APR-1999 16:16:53.00

SUBJECT: Institute stem cell statements

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TO: tleshan@ascb.org (tleshan@ascb.org [UNKNOWN])
READ:UNKNOWN

TEXT:
---------- Forwarded by Rachel E. Levinson/OSTP/EOP on
04/22/99 04:15 PM ----------

"Skirboll, Lana (OD)" <SkirbolL@od1tm1.od.nih.gov>
04/19/99 09:06:14 AM
Record Type: Record

To: See the distribution list at the bottom of this message
cc: "O'Rourke, Pearl (OD)" <OrourkeP@OD.NIH.GOV>, "Borror, Kristina (OD)"
<BORRORK@od.nih.gov>, "Kawazoe, Robin (OD)" <KawazoeR@od1tm1.od.nih.gov>
Subject: Institute stem cell statements

Her are the Institute statements on stem cell research that you asked for
at the
meeting last week. Please let me know if there are others that would like
them.

<<PSCICFNL.wpd>>

Lana

Lana R. Skirboll, Ph.D.
Director, Office of Science Policy, NIH
301-496-2122
301-402-1759 (fax)
Lana_Skirboll@nih.gov

- PSCICFNL.wpd

Message Sent
To:_____

"'bernstei@aspet.faseb.org'" <bernstei@aspet.faseb.org>
Rachel E. Levinson/OSTP/EOP
"'Dr. Ida Chow'" <ichow@faseb.org>
"'Jennifer L. Taylor'" <taylor@nhcouncil.org>
"Leshan, Tim - ASCB" <TLESHAN@ASCB.ORG>
"'dmoore@aamc.org'" <dmoore@aamc.org>

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
WPC
kpr8beA!bsIJeB &ml
jX<S9nvAH>C=M\5S752O~D]rA^?D> ry6! 1_9y_.[3(
&Hi3=s!@T8jCnAmXL'l,WsFebiD.ag{^
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$<:Default Para\ `&Times New Roman:8Body Text 2X(hH
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aVEaeeeee&3|xU6cw4Body Text?%2A`Arial?XXXS\ `&Times New RomanS
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sickling>c$"Small Circle"0

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!_8NIHRESPONSETOSENATORSPECTERFORFY2000HEARINGS 88XXdd8NationalCancerIns
titute 8 TIncancerresearch,severalapplicationsofhumanpluripotentstemcellresear
chwillhaveimportance.First,pluripotentstemcellsmaybeappliedtoreducethetissuetox
icitybroughtonbycancertherapy.Alreadybonemarrowstemcells,representingamorecommi
ttedstemcell,areusedtorescuepatientsafterhighdosechemotherapy.However,therecove
redbloodcellsappearlimitedintheirabilitytorecognizeabnormalcellssuchascancercel
ls.Itispossiblethatinjectionsofpluripotentstemcellswouldreturnthecompleterepert
oireofimmuneresponsetopatientsundergoingbonemarrowtransplantation.Thisisimporta
ntsinceourfutureplansaretomanipulatetheimmunesystemafterhighdosechemotherapy,so
thattheyspecificallyrecognizecancercells.Withoutavigorousreconstitutedimmunesys
tem,thisformofimmune/vaccinetherapywillnotwork.Otherorgansmaybenefitbyreplenish
ingtheirstemcellpools:injectionofsuchpluripotentstemcellsintotheheartmaypermane
ntlyreversecardiomyopathycausedbycertainchemotherapeuticagents.Itmayalsobepossi
bletorestorebrainfunctionaftercancertreatmentbyinjectionofpluripotentstemcellst
hathavebeendifferentiatedintoneuralcells.Second,itisthoughtthatcancercellshavec
ertainstemcellproperties;specifically,theabilitytorenewthemselves.Theisolationa
ndcharacterizationofstemcellsandindepthstudyoftheirmolecularandcellularbiologym
ayprovidekeysecretsastowhycancercellssurvivedespitesomeveryaggressivetreatments
.Onceunderstood,scientistscanthenplotdirectedattackstowardsthecancer stemcellfu
nction.Third,thereareapplicationsinthefieldofgenetherapy,whereanunderstandingof
stemcellswouldallowustoachievelongtermexpressionofadesiredgene.Ingenetherapy,aD
NAgenethatprovidesamissingornecessaryproteinisintroducedintoanorganforatherapeu
ticeffect.Forsuccessfulgenetherapyofanorgan,itiscriticalthatthedesiredgenebeint

roducedintoorganstemcellsinordertoachievesufficientlongtermexpressionandtherape
uticeffect.Oneofthebiggestproblemsofgenetherapyinclinicaltrialstodate,hasbeenth
elossofexpression(orinsufficientexpression),dueinparttoourinabilitytoidentifyst
emcells.Thepluripotentstemcellisclearlyamoreversatiletargetcellforgenetherapysi
nceitcanbemanipulatedtobecometheoreticallyanytissue.Thus,asinglegenetransferint
oapluripotentstemcellwillenablescientiststogeneratestemcellsforblood,skin,liver
,orevenbraintargets.Moreover,pluripotentstemcellsarepotentiallyamoreoptimaltarg
etthanamoredifferentiatedtissuestemcell,inthattheymayexpressthetransgenelonger.
Theapplicationstocancermaybetoengineerreplacementcellsthatareresistanttochemoth
erapeuticassault,orexpressantibodiesagainstcancertargets.Inthislatterexample,th
estemcellwouldfunctionasalongtermdeliverysystemforcancertherapeutics. @'#&
NationalHeart,Lung,andBloodInstitute 8
TheNationalHeart,Lung,andBloodInstitut
e(NHLBI)believesthathumanpluripotentstemcellresearchcandevelopexceptionalnewtoo
lstoaddressmanyimportantpublichealthproblems.Thebroadestpotentialapplicationofs
temcellresearchisthegenerationofcellsandtissuesthatcouldbeusedastherapies.Ifsci
entistscanlearnhowtocontrolstemcellconversionintonew,functionallymaturecells,th
enphysiciansmightbeabletocuremanycardiovasculardiseasesforwhichtherapyiscurrent
lyinadequate.Forexample,stemcellscouldpotentiallybeusedtorepairthefailingheartw
henitcannolongerpump,togenerategrowthofheartchamberswheninfantsarebornwithmalfo
rmedhearts,topreventrejectionoftransplantedhearts,andtorepairvasculardamageresu
ltingfromhighbloodpressureandatherosclerosis.Preliminaryworkinmiceandotheranima
lshasdemonstratedthathealthyheartmusclecellstransplantedintotheheartsuccessfull
yrepopulatethehearttissueandworktogetherwiththehostcells.Theseexperimentsshowth
atstemcelltransplantationisfeasible.Stemcellresearchcouldalsohaveramificationsf
orlungdisordersandcouldleadtomethodstocorrectdefectsinlungdevelopmentorpromotet
issuerepairfollowinginjurytothelung. NationalInstituteofDentalandCraniofac
ialResearch 8 =XXXX?+
4
<DL!X?Pluripotenthumanstemcellsofferanimportantnewtoolandresourceinbiomedicalr
esearch. Researchusinganimalpluripotentstemcellsisalreadyhelpingtoimproveourun
derstandingofthecomplexeventsoftissuedevelopmentandregeneration.Inaddition,itis
providingnewapproachesforthedevelopmentandtestingofnewdrugsandtherapiesandiscon
tributingtothedevelopmentofnewtechnologiesfortherepairandreplacementoforgans,wh
ichhavebeendamagedbydiseaseorinjury.Thisisbutaglimpseofwhatpromisestobecomear
apidlyexpandingresearchportfolioatNIDCR.Stemcellresearchshouldbetterallowustoun
derstandthebiologyofinheritedcraniofacialanomaliessuchascleftlipandcleftpalatea
ndalsothewaynormalcellscanbecomemalignantinorofacialandpharyngealcancer.Thissho
uldprovidenewinformationtopreventandtreatthesediseases.Inaddition,stemcellresea
rchcouldleadtotheengineeringofspecializedcellssuchasbone,cartilageandsalivaryce
lls,whichcanbeusedasreplacementfororgansdamagedbydiseaseorinjury.Examplesinclud
ethetreatmentoftemporomandibularjointdisorders(TMDs),thereplacementofskeletalel
ementslackingordamagedindiseasessuchasfibrousdysplasiaofboneusingcellsgrowninsp
ecialnaturalorsyntheticscaffoldingmaterials,andthereplacementofsalivarycellsdam
agedbydisease(Sjgren'sSyndrome)orradiationforheadandneckcancer.#XXXX# \
NationalInstituteofDiabetesandDigestiveandKidneyDiseases 8 Humanhumanhumanp
luripotentstemcellsofferthepotentialfortreatinganumberofmajordiseasesofconcernt
oallofourNIDDKprograms.Becauseoftheirspecialplasticity,thesecellsofferthepossib
ilitytodifferentiateintohighlyimportanttissuespecificcells.Forexample,thereisan
intenseeffortunderwaytounderstandthegeneticrulesbywhichanundifferentiatedcellbe
comesabetacelloftheisletofthepancreas,whichiscapableofsecretinginsulin.Forthist
ohappen,itisimportanttounderstandthegenesthatareexpressedtemporallythatarenoton
lyrelatedtothegrowthofthistypeofcell,butalsorelatedtoitsimportantdifferentiated
functionofrecognizingglucoseconcentrationsandrespondingbysecretinginsulin.Isola

tedcellsofthistypeareusedfortransplantationstudiesand,toalimitedextent,inhumant herapeuticapproachestotreattype1diabetes.Thehumanpluripotentstemcellcouldoffera nunlimitedsupplyofthesecellsoncetherulesofdifferentiationareknown.Otherexamples includeattemptsatcellulartherapytoreplacediseasedlivertissue.Inthiscaseacellwou ldneedtodifferentiatealongthelinesofafunctionallivercell.Again,asimilarsetofrul esarenecessaryforthistohappen,butagaintheplasticityofthehumanpluripotentstemcel lwouldformanexcellentbaseforthistooccur.Otherexamplescouldincludevariousformsof kidneycellsorpotentiallybladdercells.Atthepresenttime,thereareanumberofstudiesu nderwayinanattempttogrowbladdercellsthatcouldbeusedtoreconstructahumanbladder.T herearenumerousotherexamplesinadditiontodiabetes,liverfailure,kidneyfailure,and urologicdiseasesinwhichhumanhumanhumanpluripotentstemcellsmayhaveamajortherapeu ticrole.Itwouldalsobeimportanttotryandunderstandthegeneticrulesofdevelopmentsot hattheseimportantcellsmaybeappliedtoimportanttherapeuticuses. 0 NationalIns tituteofNeurologicalDisordersandStroke 8 "Innoareaofmedicineisthepotentialofst emcellresearchgreaterthanindiseasesofthenervoussystem.Themostobviousreasonistha tsomanydiseasesresultfromthelossofnervecells,andmaturenervecellscannotdividetor eplacethosethatarelost.InParkinsonsdisease,nervecellsthatmakethechemicaldopamin edie.InAlzheimersdisease,cellsthatmakeacetylcholinedie.Inamyotrophiclateralscle rosisthemotornervecellsthatactivatemusclesdie.Instroke,braintrauma,andspinalcor dinjurymanytypesofcellsarelost.Therearemanymoredisordersthataffectbothadultsand youngchildreninwhichnervecellsdie.Itmightseemhopelesslyoptimistictothinkthatsup plyingnewcellstoastructureasintricateasthebrainwoulddoanygood.Cannewcellsbecome wellenoughintegratedtorestorefunction?Theencouragingpreliminaryresultsfromfetal tissuetransplantationtrialsforParkinsonsdiseasearguethattheycan.Here,thedifficu ltyofobtainingenoughcellsoftherighttype!thatis,dopamineproducingnervecellslimit ssuccess.Thisyearinanimalexperimentsscientistsdevelopedmethodstoisolateneuralst emcellsandcoaxthemtoproliferateforseveralgenerationsincellculture,andthen,oncue ,tospecializeintomaturedopaminenervecells.Alargesupplyof dopaminecompetentstemc ellswillremovethebarrieroflimitedamountsoftissue.Whenthesecellswereimplantedint othebrainsofrodentswithexperimentalParkinsonsdisease,theanimalsshowedremarkable improvementsintheirmovementcontrol.Inotherexperiments,scientistsinsertedthegene foracrucialenzymeintostemcells,thentransplantedthesecellsintoanimalswithexperim entalTaySachsdisease,againwithveryencouragingresults.Experimentalcellreplacemen ttherapiesareunderwayforotherchronicdiseasesandforacutedisorderslikespinalcordi njuryandstroke.Transplanttherapiesforintractableepilepsyarealsonotoutofthequest ion.Thepotentialforcelltransplanttherapiesusingcellsderivedfromstemcellsisenorm ous.Stemcellshaveimportantusesbeyondcelltransplanttherapy.Otherpossibilitiesinc ludedrugdevelopmentanddrugscreeningmethods.Oneenticingpossibilityfollowsfromsom esurprisingresultsthatwerereportedjustlastyear.Contrarytoalongstandingbeliefth atnervecellsintheadulthumanbraincannotbereplenished,scientistsfoundneuralstemcel lsinonepartofthebrainsofadult,even60yearold,humans.Ifwecanidentifythenaturalsig nalsthatcontroltheproliferationandspecializationofstemcells,andunderstandhowbes ttoencouragetheserestorativereactions,wemaybeabletohelpthebrainrepairitselfince rtainvulnerableregions.Thepromiseofstemcellresearchisveryreal,buttorealizethepo tentialofstemcellsfortreatingnervoussystemdiseases,wemustovercomesignificantobs tacles.Wedontyetknowhowtocontrolthesurvivalandspecializationofstemcellsadequate ly.Justdeliveringcellstotheappropriatesiteswithinthehumanbrainisanextremelydiff iculttask.Allofthesefactorsargueforintensifiedeffortstounderstandthebasicbiolog yofstemcellsinthenervoussystemandtoapplywhatweknowtotreatingdisease.)$(Na tionalInstituteofAllergyandInfectiousDiseases r0Transplantation:Researchonhum anpluripotentstemcellscouldleadtocuresfordiseasesthat requiretreatmentthrought ransplantation,includingautoimmunediseases.(Autoimmunediseasesincludemultiplesc lerosis,rheumatoidarthritis,systemiclupuserythematosus,andtype1diabetes).Themos tfeasibleexampleovertheshorttermistreatmentoftype1diabetesbytransplantationofpa

ncreaticisletcellsorbetacellsproducedfromautologoushumanpluripotentstemcellstha
tishumanpluripotentstemcellsfoundinthepersonwhowouldbereceivingthetransplant.Wh
ilemuchresearchisneeded,includingresearchonwhetherstemscellscanbefoundinchildre
noradults,thepromiseisconsiderable.Autologoustransplantswouldobviatetheneedfori
mmunosuppressiveagentsintransplantationandtheensuingsusceptibilitytootherdiseas
es.Moreover,ultimately,humanpluripotentstemcellsmightbeusedtocreatetransplantab
lecells,tissues,andorgansofanytype.Inadditiontoeliminatingtheneedforimmunosuppr
essivedrugs,thiswouldaddressproblemsrangingfromthesupplyofdonororganstothediffi
cultyoffindingmatchesbetweendonorsandrecipients.PrimaryImmunodeficiencyDiseases
:Humanpluripotentstemcellsmightbeusedintreatmentof virtuallyallprimaryimmunode
ficiencies.Therearemorethan70differentformsofprimary(congenitalandinherited)def
icienciesoftheimmunesystem.Primaryimmunodeficiencydiseasesarecharacterizedbyanu
nusualsusceptibilitytoinfectionandaresometimesassociatedwithanemia,arthritis,ma
labsorptionanddiarrhea,andcertainmalignancies.Theycaninvolveconsiderablepainand
suffering,numeroushospitalizations,highmedicalcosts,andevendeath.Almostallofthe
sediseasesarerare.Becausethesediseasesaregenetic,genereplacementisanimportantar
eaofinvestigationinthesearchforeffectivetreatment.Thetransplantationofhumanplui
rpotentpluripotentstemcellsreconstitutedwithanormalgenemightresultindevelopment
ofhealthycellsofthetypesaffectedbythemissingordamagedgeneticmaterialintheimmuno
deficiencydisease.Asamechanismforgenereplacement,basedonresearchwithanimals,the
reisreasontobelievethathumanpluripotentstemcellswillhaveproliferativeadvantages
overcurrentlyavailablealternatives,suchasperipheralbloodorbonemarrowderivedhema
topoieticstemcells.Otherhypotheticaladvantagesincludegreatersusceptibilitytogen
etictransduction.Thehopeisforgreaterpotentialforengraftment,longtermsurvivaland
reconstitutionofnormalcellularfunctions.HIV/AIDS:Researchonautologoushumanpluri
potentstemcelltransplants(transplantstoand h%0!$ fromtheself)couldmakerestorati
onofimmunefunctionaviableoptionfortreatingHIVdisease.Suchtransplantscouldregene
rateallthecomponentsoftheimmunesystemthathavebeendamagedbyHIVinfection.Research
wouldneedtodemonstratethatautologoushumanpluripotentstemcellscouldbefoundinHIVi
nfectedpatients.Experimentsinanimalmodelspointtosignificantadvantageswiththeuse
ofthesecells.Primarily,thehumanpluripotentstemcellsareeasilytransducedwithnewge
neticmaterial,suchasantiHIVgenes,sothatthedaughtercellsareresistanttoHIVinfecti
on.Thus,thiscombinationofgenetherapyandstemcellresearchcouldresultintheimmunere
constitutionofAIDSpatientswithcellsthatareresistanttoHIV. ,(, NationalInsti
tuteofGeneralMedicalSciences 8 ?Humanpluripotentstemcellscouldmakeasignificant
contributiontoappliedtraumaandburnresearch,suchasresearchdevotedtothedevelopmen
tof"artificialskin."Suchabiomaterialwouldenjoywideapplicationinthefieldofburnth
erapy.Initialstudies,begunintheearly1980s,ledtothedevelopmentofamodelforcultiva
tingskincellsfromburnpatients.Themethod,whichisbeingtestedonpatientstoday,consi
stsofcombiningabiopolymerspongemadeofcollagenwithactualskincellsfromburnpatient
s.Conceivably,humanpluripotentstemcellscouldalsobeusedasasourceof"skin"tobuilds
uchagraft,especiallyforseverelyburnedpatientswithlimitingamountsofremaininginta
ctskin. p
8
NationalInstituteofChildHealthandHumanDevelopment 8 dBThefundamentalquesti
oninbiologyishowasinglefertilizedeggdevelopsintoacomplexadultorganism,withmanyd
ifferentspecializedcelltypesperformingspecificfunctions.Thisdevelopmentfollowsa
programdirectedbypreciselytimedturningonandoffofmanygenes.Learninghowthisproces
sworksisbasictothemissionofNICHD.Thisknowledgewillallowscientists,amongotherthi
ngs,todirectthedevelopmentofthesecellsalongacertainpathtobecomeliver,blood,bone
,brain,oranytypeofcellswhichthencanbeusedintransplantationandformanyotherpurpos
esdescribedbyotherInstitutes.WithinNICHDsareaofinterest,thesecellscouldbeusedto
replaceorgansortissuesthataredefectiveasaconsequenceofbirthdefects.Forexample,o
nesuchconditionisbiliaryatresia,inwhichpartoftheliverdoesnotdevelopcorrectly.Hu

manpluripotentstemcellscouldpotentiallybedirectedtoformlivertissueorintactliver toreplacethedamagedorganandsavethelifeoftheaffectedinfant. NationalEyeIn stitute 8 GTreatmentofRetinalDegenerations:Somepromisingresultshavebeenobtaine dtransplanting retinalcellsandtissuesinaneffortsto"treat"animalmodelsofretinal degeneration.However,theresultshavebeenmixedandmanyquestionsremain.Theimmunolog icissuesgoverningtransplantsurvivalarecomplexandonlypartiallyunderstood.Possibl estrategiesforovercomingtheseproblemsaresuggestedfromongoinginvestigationsofthe developmentandmaturationofthenormalretina.Celllineageanalysishasshownthatretina lcellsaregeneratedfromprogenitorcellsthroughoutdevelopment.Thecelltypesgenerate dinvitrocanbeinfluencedbytheenvironment,andcertaingrowthfactorsaddedtoretinalce llculturescanleadtoshiftsinthetypesofcellsproduced.Growthfactorscanalsoinfluenc ethesurvivalofretinalcellsinvitroorinvivo.Inadditiontotheeffectofextrinsiccues, intrinsicpropertiesofprogenitorcellscontributetothegenesisofretinalcelltypesasw ell.Thesetypesofexperimentsmayleadtomoreeffectivestrategieswherebymanipulationo ftheseprogenitorcellscouldbeexploitedforretinaltransplantationtherapies.However ,theseexperimentsmayalsorevealinsurmountabledifficultiesassociatedwiththislimit edapproach.Inwhichcase,useofpluripotentstemcellswouldbecomeessentialtoovercomet heimmunologicalorotherpotentialproblemsthatmaybeencountered.TreatmentofOcularSu rfaceDisorders:Thereisasignificantclinicalneedforimproved techniquestopromotec onjunctivalandcornealhealingduringdiseaseorafterinjury.Conventionalsurgeryisnot consistentlysuccessfulintreatingpersistentcornealulcers,chemicalorthermalinjury ,bullouskeratopathy,andvariouscicatricaldiseases.Transplantationwithpluripotent stemcellscouldprovideameansoffacilitatingepithelializationoftheocularsurface,re ducinginflammation,vascularization,andscarring. 0 NationalInstituteofEnviro nmentalHealthSciences 8 Humanpluripotentstemcellresearchoffersgreatpromisefo ruseintestingthebeneficialandtoxiceffectsofbiologicals,chemicalsanddrugs.Suchst udieswillleadtofewer,lesscostly,betterdesignedhumanclinicaltrialsyieldingmoresp ecificdiagnosticproceduresandmoreeffectivesystemictherapies.Humanpluripotentste mcellresearchalsoofferspowerfulnewresearchapproachesforclarifyingthecomplexasso ciationofenvironmentalagentswithhumandiseaseprocesses.Italsomakespossibleapower fulnewmeansofconductingdetailedinvestigationsoftheunderlyingmechanismsoftheeffe ctsofenvironmentaltoxicantormixturesoftoxicants.Cancerisnotthegreatesthealthhaz ardofenvironmentaltoxicantsatthecommonexposurelevelswithwhichweencounterthem.Of greaterconcernaretheirsubtleeffectsonthedevelopingembryonicandfetaldevelopmentt issuesystemsresponsibleformaintainingstrongpostnatalhealth.Forexample,thehumane mbryoandfetusmaybeverysusceptibletolongtermsimpairmentsofimmuneornervoussystemf unctionsfromtheinuteroeffectsoftoxicant 4
exposure.Similarly,dioxin,anenvironm
entaltoxicant,isnowpresentvirtuallyeverywhereintheenvironment,includinginhumans .Howdioxinbehavesinhumansispoorlyknownwithrespecttoitstoxiceffectsonsubtleembry onic,fetalorneonataldevelopmentalprocesseswhosedamagemaytakefurtherdecadestores ultinovertdiseaseexpression.Theuseofhumanpluripotentstemcellculturesmayallowthe identificationofthespecificearlycelltypesatgreatestriskofdioxineffects,themecha nismofthetoxiceffect(s)andthetemporalnatureofitsharboredeffectsintheprogenyofth ecelllineage(s)establishedfromsuchstemcells.Parkinsonsdisease,accordingtomostre centfindings,hasastrongenvironmentalexposurecomponentforoneformofthedisease.The natureoftheagentsandthetimingoftheexposureremainunknownatpresent.Theuseofhumanp luripotentstemcellcultureswillpermitscreeningforthesubtleeffectsofcandidateenvi ronmentaltoxicantsandtoxicantmixturesonspecificcelltypesinthedevelopmentalstage softhecelllineagecomprisingthenervoussystemcellsandtissueassociatedwiththebrain regioncompromisedbythedisease.Suchexplorationsmayyieldpowerfulinsightintothebio logicalmechanism(s)underlyinghumansusceptibilitytotheepigeneticformofthisdiseas ewithonsetafterage50,aswellasthegeneticbased earlyonsetformofthedisease.Itispos siblethatstudiesusingtheopportunitiesaffordedbyhumanpluripotentstemcellresearch

willleadtomolecularmarkersorsurrogatemarkersorcombinationsofthesethatcanbeutili
zedforpopulationbasedstudiesofgeneenvironmentinteractionindiseaseetiology.Using
thepowerofhumanpluripotentstemcelltoxicityscreeningcoupledwithDNAmicroarraytech
nology,itmaybepossiblewithinadecadetoconstructcomplexmatricesofreportermolecule
sthatreporta signaturecharacteristicofveryhighriskforthedevelopmentofacomplexso
urcehumandisease.Appliedtonewbornsandchildren,themostvulnerableofourpopulation,
maximumopportunitiesformedicalhealthplanningforinterventionandpreventionofdisea
seinsensitiveindividualswouldbepossible.)$(NationalInstituteonAging 8 <]
Researchonhumanpluripotentstemcellsofferspotentialfordevelopingtherapiestorepla
ce,repair,ormodifycellsdamagedorlostinagerelatedneurodegenerativedisorders,incl
udingParkinsonsdiseaseandAlzheimersdementias,stroke,braintrauma,andspinalcordin
jury.Forexample,inanimalmodelsandinlimitedhumanstudies,researchersareexploringw
hethertransplantingfetaldopamineproducingneuronsintothebrainsofParkinsonspatien
tsalleviatesfunctionaldecline.Theabilitytocharacterizetheexperimentalconditions
thatwouldachieveoptimalfunctionalrecoveryortodefinesurvivalpropertiesinthehostt
issuehasbeenlimitedbythesmallnumbersofcellsavailablefromfetaltissue.Withoutstem
cells,clinicaleffortstorepopulatecerebralnervecellsmustrelyuponobtainingnervece
llsdirectlyfromthebrain,whichcanbeprohibitivelydifficult.Theavailabilityofpluri
potentstemcells,thatcouldbestimulatedto \$
becomeneuralstemcells,mightofferapromisingalternativetoconventionaldrugtherapi
eswithsignificantadvantagesforthetreatmentorpreventionofneurodegenerativedisord
ers.Newopportunitiesexistto:" XX'Useofpluripotenthumanstemcellsforcelltherapyi
nAlzheimersandParkinsonsdiseases: Humanpluripotentstemcellscouldbegrownincultu
reandthentransplantedtobrainareaseitherapluripotentstemcellsorafterbeingtreate
dtobecomeaspecifictypeofneuralstemcell.Forexample,neuralstemcellscouldbestimula
tedtoeventuallydevelopintoacelltypethatusesdopaminetotransmitsignalsbetweennerv
ecells.Thesecellscouldthenbegrowninculturetoprovideapotentiallyunlimitedsupplyo
fcellsthatcouldbetransplantedintothebrainsofParkinsonsdiseasepatientstoreplacel
ostdopamineproducingneurons.Similarapproachescouldbedevelopedtoreplacethedeador
dysfunctionalcellsincorticalandhippocampalbrainregionsaffectedinpatientswithAlz
heimersdisease.Humanpluripotentstemcellscouldalsobeusedtoreplaceglialcells,whic
hhelpmaintainthemyelinsheatharoundnervefibers,inmultiplesclerosiswhichischaract
erizedbylossofthisprotectivesheath.Usestemcellsasvectorsfordeliveringgenesoroth
ertherapeuticsubstances,suchas neurotrophicorgrowthfactors,todefinedbrainregio
ns:Stemcellscouldbegeneticallymodified toexpressoneormoreneurotransmittersor
growthfactorstoprovideacontinualsourceofthesemoleculesaftertransplantation.Agai
n,researchinanimalsisshowinggreatpromiseinadaptingstemcellstocarrymoleculesinto
thebrainthatwouldprotectitfrominjuryorhastenrepair.Inaddition,transplantationof
cellsengineeredtoproducespecificgrowthfactorsisbeingtestedasatherapyforlossofdo
paminecellsinanimalmodelsofagingandofParkinsonsdisease.Currentresearchinanimals
isdeterminingthefactorsthatinducestemcellstodifferentiateintospecificneuronalce
lltypes.Thisresearchhasshownthatstemcellstransplantedintotheadultbraincansurviv
eandcanformdifferentiatedneuronsappropriateforthebraintargetsinwhichtheyareplac
ed.Studiesareneededtodeterminehowandtowhatextentneuralstemcellsareintegratedint
obraincircuitsandwhethertheycanreplacedeadcellsorpromoterecoveryofdysfunctional
cellsresultingfrominjury,neurodegeneration,oraging. *%)

NationalInstituteofArthritisandMusculoskeletalandSkinDiseases 8 Cl
XXXXGenerationofreplacementcellsandtissuetotreatdiseases:Becausestemcellsconsti
tuteself renewingpopulationofcells,theycanbeculturedtogenerategreaternumberso
fboneorcartilagecellsthancouldbeobtainedfromatissuesample.Equallyimportant,ifas
elfrenewingpopulationofnewstemcellscanbeestablishedinatransplantrecipient,itcou

ldeffectlongtermcorrectionofmanydiseasesanddegenerativeconditionsinwhichboneorc
artilagecellsaredeficientinnumbersordefectiveinfunction.Thiscouldbedoneeitherby
transplantingthestemcellsfromahealthydonortoarecipient,orbygeneticallymodifying
apersonsownstemcellsandreturningthemtothemarrow.Suchanapproachholdsgreatpromise
forgeneticdisordersofboneandcartilage,suchasosteogenesisimperfectaandthevarious
chondrodysplasias.Inasomewhatdifferentapplication,stemcellscouldbestimulatedinc
ulturetodevelopintoeitherboneorcartilageproducingcells.Thesecellscouldthenbeint
roducedintothedamagedareasofjointcartilageincasesofosteoarthritis,orintolargega
psinbonethatcanarisefromfracturesorsurgery.Thissortofrepairwouldhaveanumberofad
vantagesoverthecurrentpracticeoftissuegrafting.Improveunderstandingofnormalanda
bnormaldevelopment:Theabilitytoisolateand manipulatestemcellsinculturewillprov
ideexperimentalaccesstotheprocessesthatregulatethedifferentiationofboneandcarti
lagecells.Thiswillenableinvestigatorstoidentifythemoleculesthatcontroltheprolif
erationofstemcells,orinduceorinhibitstemcellsprogressiontomaturefunctionalcellt
ypes.Inturn,testingforthepresenceandactivityoftheseregulatorymoleculesinhealthy
anddiseasedtissueswillindicateconditionsinwhichdefectsofstemcellregulationordif
ferentiationunderliepathology.Improvedevelopmentandtestingofdrugs:Adetailedunde
rstandingofstemcellregulationand D themoleculesthataffectitwouldprovidenewtarg
etsforpharmacologicalinterventions.Stemcellculturesystemswouldalsomakepossibler
apidandeconomicaltestingofcandidateagentsforbotheffectivenessandsafety. Na
tionalInstituteonDeafnessandOtherCommunicationDisorders 8 vStemcellresearchoff
ersthepossibilityofpotentiallyreplacingthesounddetectinghaircellsintheinnereart
hatareoftenlostduetogenetic,infectious,traumatic,orpharmacologiccauses.Manyscie
ntificadvancesmustoccurbeforeitwouldberationaltoattempttousepluirpotentpluripot
entstemcellsgeneratelosthaircells,includingresearchadvancesthatwouldpreventimmu
nerejectionofsuchstemcells.Inaddition,researchadvanceswillbeneededtodefinethemo
leculareventsthatleadhumanpluripotentstemcellstoadifferentiationpathwaythatgene
rateshighlyspecializedhaircells,andnototherspecializedcells.Havingnotedthesecav
eats,anopportunitywouldbelostifinvestigatorswereunabletoobtainNIHsupporttodeter
minethefullpotentialofhumanpluripotentstemcellsforreplacingdifferentiatedcellst
hatarelostordamaged.#XXX
Xl# H NationalInstituteofMentalHealth 8 <zThereisgoodevidencethatmanyofth
ementalandbehavioraldisorderssuchasschizophrenia,autism,manicdepressiveillnessa
ndmemorydisorders,resultfrompermanentdisruptionofbraincircuitryorbrainchemistry
.TheNationalInstituteofMentalHealth(NIMH)iscurrentlysupportingmanyresearchgrant
stodetermineexactlywhereandhowsuchbraindisruptionsmayoccur,andisencouragingavig
orousprogramofresearch,includingstemcellresearchwithanimalstodevelopdiseasemode
lsandunderstandbasicneuronalprocesses.Forexample,scientistsareusingnonhumanprim
atemodelstoexplorethehypothesisthatschizophreniaistheresultofdamagetobraincells
thatmatureataparticularstageofinhumandevelopment.Ifthishypothesisprovestrue,plu
ripotentstemcellsmightprovideawindowintowhatgoeswronginthedevelopmentalprocesse
softhesesuchbraincells.Inanotherarena,investigatorsareexaminingstressandtoxinin
ducedlossofcellsinabrainstructureimportantformemory,thehippocampus.Animalstudie
shaveshownthatnaturalreplacementofcellsinthehippocampus,viastemcells,resultsini
mprovedmemoryperformanceaslongasanotherimportantstructureformemory,thecerebralc
ortex,islargelyintact.Humanpluripotentstemcellsmightultimatelybeimportanttothed
evelopmentofreplacementcellsinthehippocampusofhumanssufferingfrommemorylosscaus
edbyselectivedamagetothehippocampus. H NationalInstituteonDrugAbuse 8 xRef
inementofhumanpluripotentstemcelltechnologywillprovideanadditionaltoolforscient
iststostudydrugsofabuse.Forexample,althoughwearecurrentlynotsupportinganystemce
llresearch,NIDAsupportedresearcherscanpotentiallyusestemcellstoreversesomeofthe
longtermeffectsofdrugs.Pluripotentstemcellsofferapotentialmeansofreplacingneuro
nsdestroyedbydrugabuse.Thiswillbeespeciallyusefulforindividualswhohaveabuseddru
gssuchasmethamphetamine,MDMA(ecstacy)andinhalantswhichhavebeenshowninanimalands

omehumanstudiestocauselongterm,possiblypermanentdamagetoselectedareasofthebrain
.Forexample,recentresearchhasshownthatmethamphetaminecanhavesignificanttoxiceff
ectsondopaminergicandserotonergicneuronsinthebrain.Thisisofparticularconcernbec
auseofthespreadinguseofthisdrugandmayberelatedtothedramaticbehavioraleffects,in
cludingthedevelopmentofpsychoticlikebehaviorpatternsthatmethamphetaminecanhavei
nsomepeople.Pluripotentstemcellsstimulatedtodevelopintodopaminergic,serotonergi
corothertypesofneurons,couldofferapotentialmeansofreplacingneuronsdestroyedbydr
ugabuse.Inthisway,wemaybeabletoeventuallyreversesomeofthedebilitatingbehavioral
effectsofdrugssuchasmethamphetamine.Pluripotentstemcellscanalsoleadtothedevelop
mentofvaluabletissuesourcesforscreenstostudytheeffectsofdrugexposureonspecificc
elltypes.Thiscouldhelpresearchersdeterminewhetherinuteroexposuretodrugssuchasme
thamphetamineisneurotoxicandwhichcelltypesareparticularlyvulnerable.Inthisway,r
esearcherswillbetterunderstandtheeffectsthatprenatalexposuretodrugsofabusehaveu
ponthedevelopingfetus,therebygainingknowledgecriticallyimportanttotheimprovemen
tofthepublichealthofneonates,infants,andchildrenwhichcannotbelearnedthroughstud
iesonhumansthemselves. 0 NationalInstituteonAlcoholAbuseandAlcoholism 8 Pl
uripotentstemcellresearchofferssignificantpotentialforadvancesinthetreatmentofa
lcoholassociatedorganpathologyandinpreventingortreatingfetalalcoholsyndrome.The
valueofpluripotentstemcellresearchwouldbeinelucidatingmechanismsofcellulardiffe
rentiation.Withthisknowledge,scientistswouldhavethepotentialtoselectivelydiffer
entiatecellsintovarioustissues.Thefollowingexamplesdemonstratethepotentialutili
tyofthistypeofresearchtothealcoholfield:Alcoholinducedpathology:Alcoholisamajor
sourceofdamagetoorgans,suchastheliverand L brain,thatmayormaynotregainfunctio
nwithabstinencefromdrinking.Developmentofmedicationsthatacceleraterecoveryinorg
ansdamagedbyalcoholwouldbeamajorbreakthrough.Suchanadvancewouldlessenhumansuffe
ringandtheeconomicburdenassociatedwithalcoholinducedorgandamage.Humanpluripoten
tstemcellresearchcouldprovideacosteffectivemeansofdiscoveringmechanismsthatunde
rliealcoholrelatedpathologyandthatcouldbetargetsfornewmedications.Forcasesofirr
eversibleorgandamage,humanpluripotentstemcellresearchcouldbeusedtofacilitategen
erationofneworgantissue.Fetalalcoholsyndrome(FAS):Humanpluripotentstemcellswoul
dprovideFASinvestigators withatooltostudyhowalcoholdisruptscellulardifferentia
tion.Findingsfromthisresearchwouldcontributetothedesignofpotentialinterventions
forFAS. H NationalCenterforResearchResources 8 BManyscientistsbelievethati
tonedaymaybepossibletogrowreplacementorgansintissueculturefromcellsthathavebeen
specificallyprogrammed.Already,skinisroutinelygrowninlargesheetsandusedtoreplac
eskindestroyedbyburnsorothertypesofinjury.Butbeforecomplextissuesfromthebrain,h
eart,pancreasorlivercanbereliablyreproduced,yearsofresearchlieahead.Studiesonhu
manpluripotentstem,knownas,canprovideimportantinformationonhowthedifferentorgan
systemsinthebodydevelopandhowthisdevelopmentcanbecontrolledandputtogooduse.Unfo
rtunately,stemcellsstillaredifficulttoisolateandculture.NCRRwillsupportthedevel
opmentofanonhumanstemcellresourcetofacilitatethisimportantresearch.Suchstemcell
studiesmayeventuallyleadtoeffectivetreatmentsforAlzheimer'sandParkinson'sdiseas
eandpossiblyotherdegenerativebraindisordersaswellastotheproductionofinsulinprod
ucingpancreaticbetacellstotreatdiabeticswhonolongercanmaketheirowninsulin.Itmay
alsobetogeneratereplacementheartvalvesandfunctionallivertissue. NationalIn
stituteofNursingResearch 8 2Nursingresearchwillbenefitfromthetechnologicaladva
ncesfromhumanpluripotentstemcellresearch.Forexample,investigatorsinourIntramura
lWoundHealingLaboratorycouldgrowskintissuetobeusedforgraftsinchronicwounds,usin
gthepatientsowntissue.Whenstemcellclinicalapplicationsinvolvepatientcare,nursin
gresearchstudieswillcontributetothesciencebaseforhealthcareprofessionals,especi
allynurses.
t NationalHumanGenomeResearchInstitute 8 fTheNationalHumanGenomeResearchIns
tituteisusingthetoolsproducedbytheHumanGenomeProjecttostudythefundamentalmechan
ismsofdevelopmentandthecontributionsofgeneticfactorstodisease.NHGRIinvestigator

shaveidentifiedthefollowingaspotentiallypromisingareasofstudyinvolvingpluripote
ntstemcells:GeneExpression:Thedifferentiationpotentialofpluripotentstemcellsmak
ethemimportant
t candidatesforstudiesofalterationsingeneexpressionprofiles.Beingabletoexaminet
hegenesthatareturnedonandoffduringthedifferentiationprocessofthesecellsusingnew
lydevelopedmicroarraytechnologycouldsupplyveryusefulinformationaboutnormalandab
normalcelldevelopment.Thisinformationcouldhavepromisingapplicationtoawholehosto
fdiseaseareas.W=4
<DL!T$&)\+-0` XWParkinsonsDisease(PD):PDiscausedbydegenerationofneuronsinareg
ionofthebrain,the 4
substantianigra,leadingtosevereabnormalitiesinmovement.The
causeislargelyunknown,althoughinafewrarefamilieswithearlyonsetdisease,mutations
inthegeneforalphasynucleinareknowntoberesponsible.Aswithotherneurodegenerated
isorders,replacementofdamagednervecellswithnervecellsgeneratedfrompluripoentplu
ripotentstemcellsisoneavenueofpossibletherapy.Currentexperimentsusingfetalcells
forreplacementhaveprovidedverymixedresults,especiallyinthelongterm.Onepossiblee
xplanationforthelessthancompletereplacementisthatthecellsbeingtransplantedareto
ofaralonginpathofdevelopmentanddifferentiationtobeabletotakeupresidenceinthesub
stantianigra,makeallthecorrectconnections,andreplacethedamagedcells.Usingevenle
ssdifferentiatedcells,suchashumanpluripotentstemcells,isapossiblealternative.Q=
4
<DL!T$&)\+-0XQGeneTherapy:Almostanygeneticdiseasewherecellandtissuetransplant
ationprotocolsexist D couldpotentiallybenefitfromtheapplicationofhumanpluripot
entstemcellsingenetherapy.Forexample,patientswithgeneticdisordersofimmunitymigh
tbenefitgreatlyfromstudiesinvolvinggenetransferusingspeciallyderivedpluripotent
stemcells.Studiesinvolvingthesecellsmayalsobeusefulinimmunereconstitutionorengi
neeringviralresistanceforHIVinfectedindividuals.Q=4
<DL!T$&)\+-0XQBloodDisorders/SickleCellDisease:Theepsilonglobingeneisexpresse
donlyinredbloodstem ! cells.Thisgenerecentlyhasbeenshowntoblockthesicklingofth
esicklecellhemoglobin.Researchinvolvinghumanpluripotentstemcellscouldhelpanswer
questionsabouthowtoturnontheepsilonglobingeneinadultbloodcellsandtherebyhaltthe
diseaseprocess.Stemcellresearchmayalsohelpproducetransplantablecellsthatwouldno
tcontainthesicklecellmutation.Q=4
<DL!T$&)\+-0XQ========== END ATTACHMENT 1 ==========

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME:22-APR-1999 17:28:44.00

SUBJECT: Institute stem cell statements

TO: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TO: Devorah R. Adler (CN=Devorah R. Adler/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TO: Christopher C. Jennings (CN=Christopher C. Jennings/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
FYI - from NIH following stem cell meeting

---------- Forwarded by Rachel E. Levinson/OSTP/EOP on
04/22/99 05:28 PM ----------

"Skirboll, Lana (OD)" <SkirbolL@od1tm1.od.nih.gov>
04/19/99 09:06:14 AM
Record Type: Record

To: See the distribution list at the bottom of this message
cc: "O'Rourke, Pearl (OD)" <OrourkeP@OD.NIH.GOV>, "Borror, Kristina (OD)"
<BORRORK@od.nih.gov>, "Kawazoe, Robin (OD)" <KawazoeR@od1tm1.od.nih.gov>
Subject: Institute stem cell statements

Her are the Institute statements on stem cell research that you asked for
at the
meeting last week. Please let me know if there are others that would like
them.

<<PSCICFNL.wpd>>

Lana

Lana R. Skirboll, Ph.D.
Director, Office of Science Policy, NIH
301-496-2122
301-402-1759 (fax)
Lana_Skirboll@nih.gov

- PSCICFNL.wpd

Message Sent
To:_____
"'bernstei@aspet.faseb.org'" <bernstei@aspet.faseb.org>
Rachel E. Levinson/OSTP/EOP
"'Dr. Ida Chow'" <ichow@faseb.org>
"'Jennifer L. Taylor'" <taylor@nhcouncil.org>
"Leshan, Tim - ASCB" <TLESHAN@ASCB.ORG>
"'dmoore@aamc.org'" <dmoore@aamc.org>

========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
WPC
kpr8beA!bslJeB &ml
jX<S9nvAH>C=M\5S752O~D]rA^?D> ry6! 1_9y_.[3(
&Hi3=s!@T8jCnAmXL'l,WsFebiD.ag{^
{x.dz
CPo7<L[4y2[@${[&a)#=5favX=H$q`=HX-=drTz#NmC+e(:{I&gxMP5t0,+x<3>w?Sg{
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)rD=C+4p/+X#@A+#!ZUN{ %0(M0<U>7Mu0iyUNM0U*4M^^bw@n4 mM0M M N . ? ? ?
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L]]]]]]]] 0B Epson ActionLaser 1500,,,,,,0(9 Z6Times New Roman RegularX(
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aVEaeeeee&3|xU6cw4Body Text?%2A`Arial?XXXS\ `&Times New RomanS
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sickling>c$"Small Circle"0

2$Square0
!_8NIHRESPONSETOSENATORSPECTERFORFY2000HEARINGS 88XXdd8NationalCancerIns
titute 8 TIncancerresearch,severalapplicationsofhumanpluripotentstemcellresear
chwillhaveimportance.First,pluripotentstemcellsmaybeappliedtoreducethetissuetox
icitybroughtonbycancertherapy.Alreadybonemarrowstemcells,representingamorecommi
ttedstemcell,areusedtorescuepatientsafterhighdosechemotherapy.However,therecove
redbloodcellsappearlimitedintheirabilitytorecognizeabnormalcellssuchascancercel
ls.Itispossiblethatinjectionsofpluripotentstemcellswouldreturnthecompleterepert
oireofimmuneresponsetopatientsundergoingbonemarrowtransplantation.Thisisimporta
ntsinceourfutureplansaretomanipulatetheimmunesystemafterhighdosechemotherapy,so
thattheyspecificallyrecognizecancercells.Withoutavigorousreconstitutedimmunesys
tem,thisformofimmune/vaccinetherapywillnotwork.Otherorgansmaybenefitbyreplenish
ingtheirstemcellpools:injectionofsuchpluripotentstemcellsintotheheartmaypermane
ntlyreversecardiomyopathycausedbycertainchemotherapeuticagents.Itmayalsobepossi
bletorestorebrainfunctionaftercancertreatmentbyinjectionofpluripotentstemcellst
hathavebeendifferentiatedintoneuralcells.Second,itisthoughtthatcancercellshavec
ertainstemcellproperties;specifically,theabilitytorenewthemselves.Theisolationa
ndcharacterizationofstemcellsandindepthstudyoftheirmolecularandcellularbiologym
ayprovidekeysecretsastowhycancercellssurvivedespitesomeveryaggressivetreatments

.Onceunderstood,scientistscanthenplotdirectedattackstowardsthecancer stemcellfu
nction.Third,thereareapplicationsinthefieldofgenetherapy,whereanunderstandingof
stemcellswouldallowustoachievelongtermexpressionofadesiredgene.Ingenetherapy,aD
NAgenethatprovidesamissingornecessaryproteinisintroducedintoanorganforatherapeu
ticeffect.Forsuccessfulgenetherapyofanorgan,itiscriticalthatthedesiredgenebeint
roducedintoorganstemcellsinordertoachievesufficientlongtermexpressionandtherape
uticeffect.Oneofthebiggestproblemsofgenetherapyinclinicaltrialstodate,hasbeenth
elossofexpression(orinsufficientexpression),dueinparttoourinabilitytoidentifyst
emcells.Thepluripotentstemcellisclearlyamoreversatiletargetcellforgenetherapysi
nceitcanbemanipulatedtobecometheoreticallyanytissue.Thus,asinglegenetransferint
oapluripotentstemcellwillenablescientiststogeneratestemcellsforblood,skin,liver
,orevenbraintargets.Moreover,pluripotentstemcellsarepotentiallyamoreoptimaltarg
etthanamoredifferentiatedtissuestemcell,inthattheymayexpressthetransgenelonger.
Theapplicationstocancermaybetoengineerreplacementcellsthatareresistanttochemoth
erapeuticassault,orexpressantibodiesagainstcancertargets.Inthislatterexample,th
estemcellwouldfunctionasalongtermdeliverysystemforcancertherapeutics. @'#&
NationalHeart,Lung,andBloodInstitute 8
TheNationalHeart,Lung,andBloodInstitut
e(NHLBI)believesthathumanpluripotentstemcellresearchcandevelopexceptionalnewtoo
lstoaddressmanyimportantpublichealthproblems.Thebroadestpotentialapplicationofs
temcellresearchisthegenerationofcellsandtissuesthatcouldbeusedastherapies.Ifsci
entistscanlearnhowtocontrolstemcellconversionintonew,functionallymaturecells,th
enphysiciansmightbeabletocuremanycardiovasculardiseasesforwhichtherapyiscurrent
lyinadequate.Forexample,stemcellscouldpotentiallybeusedtorepairthefailingheartw
henitcannolongerpump,togenerategrowthofheartchamberswheninfantsarebornwithmalfo
rmedhearts,topreventrejectionoftransplantedhearts,andtorepairvasculardamageresu
ltingfromhighbloodpressureandatherosclerosis.Preliminaryworkinmiceandotheranima
lshasdemonstratedthathealthyheartmusclecellstransplantedintotheheartsuccessfull
yrepopulatetheheart tissueandworktogetherwiththehostcells.Theseexperimentsshowth
atstemcelltransplantationisfeasible.Stemcellresearchcouldalsohaveramificationsf
orlungdisordersandcouldleadtomethodstocorrectdefectsinlungdevelopmentorpromotet
issuerepairfollowinginjurytothelung. NationalInstituteofDentalandCraniofac
ialResearch 8 =XXXX?+
4
<DL!X?Pluripotenthumanstemcellsofferanimportantnewtoolandresourceinbiomedicalr
esearch. Researchusinganimalpluripotentstemcellsisalreadyhelpingtoimproveourun
derstandingofthecomplexeventsoftissuedevelopmentandregeneration.Inaddition,itis
providingnewapproachesforthedevelopmentandtestingofnewdrugsandtherapiesandiscon
tributingtothedevelopmentofnewtechnologiesfortherepairandreplacementoforgans,wh
ichhavebeendamagedbydiseaseorinjury.Thisisbutaglimpseofwhatpromisestobecomear
apidlyexpandingresearchportfolioatNIDCR.Stemcellresearchshouldbetterallowustoun
derstandthebiologyofinheritedcraniofacialanomaliessuchascleftlipandcleftpalatea
ndalsothewaynormalcellscanbecomemalignantinorofacialandpharyngealcancer.Thissho
uldprovidenewinformationtopreventandtreatthesediseases.Inaddition,stemcellresea
rchcouldleadtotheengineeringofspecializedcellssuchasbone,cartilageandsalivaryce
lls,whichcanbeusedasreplacementfororgansdamagedbydiseaseorinjury.Examplesinclud
ethetreatmentoftemporomandibularjointdisorders(TMDs),thereplacementofskeletalel
ementslackingordamagedindiseasessuchasfibrousdysplasiaofboneusingcellsgrowninsp
ecialnaturalorsyntheticscaffoldingmaterials,andthereplacementofsalivarycellsdam
agedbydisease(Sjgren'sSyndrome)orradiationforheadandneckcancer.#XXXX# \
NationalInstituteofDiabetesandDigestiveandKidneyDiseases 8 Humanhumanhumanp
luripotentstemcellsofferthepotentialfortreatinganumberofmajordiseasesofconcernt
oallofourNIDDKprograms.Becauseoftheirspecialplasticity,thesecellsofferthepossib
ilitytodifferentiateintohighlyimportanttissuespecificcells.Forexample,thereisan

intenseeffortunderwaytounderstandthegeneticrulesbywhichanundifferentiatedcellbe
comesabetacelloftheisletofthepancreas,whichiscapableofsecretinginsulin.Forthist
ohappen,itisimportanttounderstandthegenesthatareexpressedtemporallythatarenoton
lyrelatedtothegrowthofthistypeofcell,butalsorelatedtoitsimportantdifferentiated
functionofrecognizingglucoseconcentrationsandrespondingbysecretinginsulin.Isola
tedcellsofthistypeareusedfortransplantationstudiesand,toalimitedextent,inhumant
herapeuticapproachestotreattype1diabetes.Thehumanpluripotentstemcellcouldoffera
nunlimitedsupplyofthesecellsoncetherulesofdifferentiationareknown.Otherexamples
includeattemptsatcellulartherapytoreplacediseasedlivertissue.Inthiscaseacellwou
ldneedtodifferentiatealongthelinesofafunctionallivercell.Again,asimilarsetofrul
esarenecessaryforthistohappen,butagaintheplasticityofthehumanpluripotentstemcel
lwouldformanexcellentbaseforthistooccur.Otherexamplescouldincludevariousformsof
kidneycellsorpotentiallybladdercells.Atthepresenttime,thereareanumberofstudiesu
nderwayinanattempttogrowbladdercellsthatcouldbeusedtoreconstructahumanbladder.T
herearenumerousotherexamplesinadditiontodiabetes,liverfailure,kidneyfailure,and
urologicdiseasesinwhichhumanhumanhumanpluripotentstemcellsmayhaveamajortherapeu
ticrole.Itwouldalsobeimportanttotryandunderstandthegeneticrulesofdevelopmentsot
hattheseimportantcellsmaybeappliedtoimportanttherapeuticuses. 0 NationalIns
tituteofNeurologicalDisordersandStroke 8 "Innoareaofmedicineisthepotentialofst
emcellresearchgreaterthanindiseasesofthenervoussystem.Themostobviousreasonistha
tsomanydiseasesresultfromthelossofnervecells,andmaturenervecellscannotdividetor
eplacethosethatarelost.InParkinsonsdisease,nervecellsthatmakethechemicaldopamin
edie.InAlzheimersdisease,cellsthatmakeacetylcholinedie.Inamyotrophiclateralscle
rosisthemotornervecellsthatactivatemusclesdie.Instroke,braintrauma,andspinalcor
dinjurymanytypesofcellsarelost.Therearemanymoredisordersthataffectbothadultsand
youngchildreninwhichnervecellsdie.Itmightseemhopelesslyoptimistictothinkthatsup
plyingnewcellstoastructureasintricateasthebrainwoulddoanygood.Cannewcellsbecome
wellenoughintegratedtorestorefunction?Theencouragingpreliminaryresultsfromfetal
tissuetransplantationtrialsforParkinsonsdiseaseargue thattheycan.Here,thedifficu
ltyofobtainingenoughcellsoftherighttype!thatis,dopamineproducingnervecellslimit
ssuccess.Thisyearinanimalexperimentsscientistsdevelopedmethodstoisolateneuralst
emcellsandcoaxthemtoproliferateforseveralgenerationsincellculture,andthen,oncue
,tospecializeintomaturedopaminenervecells.Alargesupplyof dopaminecompetentstemc
ellswillremovethebarrieroflimitedamountsoftissue.Whenthesecellswereimplantedint
othebrainsofrodentswithexperimentalParkinsonsdisease,theanimalsshowedremarkable
improvementsintheirmovementcontrol.Inotherexperiments,scientistsinsertedthegene
foracrucialenzymeintostemcells,thentransplantedthesecellsintoanimalswithexperim
entalTaySachsdisease,againwithveryencouragingresults.Experimentalcellreplacemen
ttherapiesareunderwayforotherchronicdiseasesandforacutedisorderslikespinalcordi
njuryandstroke.Transplanttherapiesforintractableepilepsyarealsonotoutofthequest
ion.Thepotentialforcelltransplanttherapiesusingcellsderivedfromstemcellsisenorm
ous.Stemcellshaveimportantusesbeyondcelltransplanttherapy.Otherpossibilitiesinc
ludedrugdevelopmentanddrugscreeningmethods.Oneenticingpossibilityfollowsfromsom
esurprisingresultsthatwerereportedjustlastyear.Contrarytoalongstandingbelieftha
tnervecellsintheadulthumanbraincannotbereplenished,scientistsfoundneuralstemcel
lsinonepartofthebrainsofadult,even60yearold,humans.Ifwecanidentifythenaturalsig
nalsthatcontroltheproliferationandspecializationofstemcells,andunderstandhowbes
ttoencouragetheserestorativereactions,wemaybeabletohelpthebrainrepairitselfince
rtainvulnerableregions.Thepromiseofstemcellresearchisveryreal,buttorealizethepo
tentialofstemcellsfortreatingnervoussystemdiseases,wemustovercomesignificantobs
tacles.Wedontyetknowhowtocontrolthesurvivalandspecializationofstemcellsadequate
ly.Justdeliveringcellstotheappropriatesiteswithinthehumanbrainisanextremelydiff
iculttask.Allofthesefactorsargueforintensifiedeffortstounderstandthebasicbiolog
yofstemcellsinthenervoussystemandtoapplywhatweknowtotreatingdisease.)$(Na

tionalInstituteofAllergyandInfectiousDiseases r0Transplantation:Researchonhum
anpluripotentstemcellscouldleadtocuresfordiseasesthat requiretreatmentthrought
ransplantation,includingautoimmunediseases.(Autoimmunediseasesincludemultiplesc
lerosis,rheumatoidarthritis,systemiclupuserythematosus,andtypeIdiabetes).Themos
tfeasibleexampleovertheshorttermistreatmentoftypeIdiabetesbytransplantationofpa
ncreaticisletcellsorbetacellsproducedfromautologoushumanpluripotentstemcellstha
tishumanpluripotentstemcellsfoundinthepersonwhowouldbereceivingthetransplant.Wh
ilemuchresearchisneeded,includingresearchonwhetherstemscellscanbefoundinchildre
noradults,thepromiseisconsiderable.Autologoustransplantswouldobviatetheneedfori
mmunosuppressiveagentsintransplantationandtheensuingsusceptibilitytootherdiseas
es.Moreover,ultimately,humanpluripotentstemcellsmightbeusedtocreatetransplantab
lecells,tissues,andorgansofanytype.Inadditiontoeliminatingtheneedforimmunosuppr
essivedrugs,thiswouldaddressproblemsrangingfromthesupplyofdonororganstothediffi
cultyoffindingmatchesbetweendonorsandrecipients.PrimaryImmunodeficiencyDiseases
:Humanpluripotentstemcellsmightbeusedintreatmentof virtuallyallprimaryimmunode
ficiencies.Therearemorethan70differentformsofprimary(congenitalandinherited)def
icienciesoftheimmunesystem.Primaryimmunodeficiencydiseasesarecharacterizedbyanu
nusualsusceptibilitytoinfectionandaresometimesassociatedwithanemia,arthritis,ma
labsorptionanddiarrhea,andcertainmalignancies.Theycaninvolveconsiderablepainand
suffering,numeroushospitalizations,highmedicalcosts,andevendeath.Almostallofthe
sediseasesarerare.Becausethesediseasesaregenetic,genereplacementisanimportantar
eaofinvestigationinthesearchforeffectivetreatment.Thetransplantationofhumanplui
rpotentpluripotentstemcellsreconstitutedwithanormalgenemightresultindevelopment
ofhealthycellsofthetypesaffectedbythemissingordamagedgeneticmaterialintheimmuno
deficiencydisease.Asamechanismforgenereplacement,basedonresearchwithanimals,the
reisreasontobelievethathumanpluripotentstemcellswillhaveproliferativeadvantages
overcurrentlyavailablealternatives,suchasperipheralbloodorbonemarrowderivedhema
topoieticstemcells.Otherhypotheticaladvantagesincludegreatersusceptibilitytogen
etictransduction.Thehopeisforgreaterpotentialforengraftment,longtermsurvivaland
reconstitutionofnormalcellularfunctions.HIV/AIDS:Researchonautologoushumanpluri
potentstemcelltransplants(transplantstoand h%0!$ fromtheself)couldmakerestorati
onofimmunefunctionaviableoptionfortreatingHIVdisease.Suchtransplantscouldregene
rateallthecomponentsoftheimmunesystemthathavebeendamagedbyHIVinfection.Research
wouldneedtodemonstratethatautologoushumanpluripotentstemcellscouldbefoundinHIVi
nfectedpatients.Experimentsinanimalmodelspointtosignificantadvantageswiththeuse
ofthesecells.Primarily,thehumanpluripotentstemcellsareeasilytransducedwithnewge
neticmaterial,suchasantiHIVgenes,sothatthedaughtercellsareresistanttoHIVinfecti
on.Thus,thiscombinationofgenetherapyandstemcellresearchcouldresultintheimmunere
constitutionofAIDSpatientswithcellsthatareresistanttoHIV. ,(, NationalInsti
tuteofGeneralMedicalSciences 8 ?Humanpluripotentstemcellscouldmakeasignificant
contributiontoappliedtraumaandburnresearch,suchasresearchdevotedtothedevelopmen
tof"artificialskin."Suchabiomaterialwouldenjoywideapplicationinthefieldofburnth
erapy.Initialstudies,begunintheearly1980s,ledtothedevelopmentofamodelforcultiva
tingskincellsfromburnpatients.Themethod,whichisbeingtestedonpatientstoday,consi
stsofcombiningabiopolymerspongemadeofcollagenwithactualskincellsfromburnpatient
s.Conceivably,humanpluripotentstemcellscouldalsobeusedasasourceof"skin"tobuilds
uchagraft,especiallyforseverelyburnedpatientswithlimitingamountsofremaininginta
ctskin. p
8
NationalInstituteofChildHealthandHumanDevelopment 8 dBThefundamentalquesti
oninbiologyishowasinglefertilizedeggdevelopsintoacomplexadultorganism,withmanyd
ifferentspecializedcelltypesperformingspecificfunctions.Thisdevelopmentfollowsa
programdirectedbypreciselytimedturningonandoffofmanygenes.Learninghowthisproces
sworksisbasictothemissionofNICHD.Thisknowledgewillallowscientists,amongotherthi

ngs,todirectthedevelopmentofthesecellsalongacertainpathtobecomeliver,blood,bone
,brain,oranytypeofcellswhichthencanbeusedintransplantationandformanyotherpurpos
esdescribedbyotherInstitutes.WithinNICHDsareaofinterest,thesecellscouldbeusedto
replaceorgansortissuesthataredefectiveasaconsequenceofbirthdefects.Forexample,o
nesuchconditionisbiliaryatresia,inwhichpartoftheliverdoesnotdevelopcorrectly.Hu
manpluripotentstemcellscouldpotentiallybedirectedtoformlivertissueorintactliver
toreplacethedamagedorganandsavethelifeoftheaffectedinfant. NationalEyeIn
stitute 8 GTreatmentofRetinalDegenerations:Somepromisingresultshavebeenobtaine
dtransplanting retinalcellsandtissuesinaneffortsto"treat"animalmodelsofretinal
degeneration.However,theresultshavebeenmixedandmanyquestionsremain.Theimmunolog
icissuesgoverningtransplantsurvivalarecomplexandonlypartiallyunderstood.Possibl
estrategiesforovercomingtheseproblemsaresuggestedfromongoinginvestigationsofthe
developmentandmaturationofthenormalretina.Celllineageanalysishasshownthatretina
lcellsaregeneratedfromprogenitorcellsthroughoutdevelopment.Thecelltypesgenerate
dinvitrocanbeinfluencedbytheenvironment,andcertaingrowthfactorsaddedtoretinalce
llculturescanleadtoshiftsinthetypesofcellsproduced.Growthfactorscanalsoinfluenc
ethesurvivalofretinalcellsinvitroorinvivo.Inadditiontotheeffectofextrinsiccues,
intrinsicpropertiesofprogenitorcellscontributetothegenesisofretinalcelltypesasw
ell.Thesetypesofexperimentsmayleadtomoreeffectivestrategieswherebymanipulationo
ftheseprogenitorcellscouldbeexploitedforretinaltransplantationtherapies.However
,theseexperimentsmayalsorevealinsurmountabledifficultiesassociatedwiththislimit
edapproach.Inwhichcase,useofpluripotentstemcellswouldbecomeessentialtoovercomet
heimmunologicalorotherpotentialproblemsthatmaybeencountered.TreatmentofOcularSu
rfaceDisorders:Thereisasignificantclinicalneedforimproved techniquestopromotec
onjunctivalandcornealhealingduringdiseaseorafterinjury.Conventionalsurgeryisnot
consistentlysuccessfulintreatingpersistentcornealulcers,chemicalorthermalinjury
,bullouskeratopathy,andvariouscicatricaldiseases.Transplantationwithpluripotent
stemcellscouldprovideameansoffacilitatingepithelializationoftheocularsurface,re
ducinginflammation,vascularization,andscarring. 0 NationalInstituteofEnviro
nmentalHealthSciences 8 Humanpluripotentstemcellresearchoffersgreatpromisefo
ruseintestingthebeneficialandtoxiceffectsofbiologicals,chemicalsanddrugs.Suchst
udieswillleadtofewer,lesscostly,betterdesignedhumanclinicaltrialsyieldingmoresp
ecificdiagnosticproceduresandmoreeffectivesystemictherapies.Humanpluripotentste
mcellresearchalsoofferspowerfulnewresearchapproachesforclarifyingthecomplexasso
ciationofenvironmentalagentswithhumandiseaseprocesses.Italsomakespossibleapower
fulnewmeansofconductingdetailedinvestigationsoftheunderlyingmechanismsoftheeffe
ctsofenvironmentaltoxicantormixturesoftoxicants.Cancerisnotthegreatesthealthhaz
ardofenvironmentaltoxicantsatthecommonexposurelevelswithwhichweencounterthem.Of
greaterconcernaretheirsubtleeffectsonthedevelopingembryonicandfetaldevelopmentt
issuesystemsresponsibleformaintainingstrongpostnatalhealth.Forexample,thehumane
mbryoandfetusmaybeverysusceptibletolongtermsimpairmentsofimmuneornervoussystemf
unctionsfromtheinuteroeffectsoftoxicant 4
exposure.Similarly,dioxin,anenvironm
entaltoxicant,isnowpresentvirtuallyeverywhereintheenvironment,includinginhumans
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tcontainthesicklecellmutation.Q=4
<DL!T$&)\+-0XQ========== END ATTACHMENT 1 ==========

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:22-APR-1999 17:18:23.00

SUBJECT: Re: Institute stem cell statements

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
Also, talked to Am Health Assn today. The staff is with us. the problem is their leadership. They meet with Shalala on wednesday so I'm working with her staff to see if she can say anything to their leadership.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:22-APR-1999 16:29:01.00

SUBJECT: Re: Institute stem cell statements

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
I'll get out to folks.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME:22-APR-1999 16:52:37.00

SUBJECT: Re: Institute stem cell statements

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TEXT:
I think Tim can get it around to the people who came to the meeting. I
would be happy to send it to Jenny and Chris if you like.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME:22-APR-1999 17:27:04.00

SUBJECT: Re: Institute stem cell statements

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TEXT:
Great! good luck

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:22-APR-1999 18:30:18.00

SUBJECT: Re: Institute stem cell statements

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
talked to rich tarplan who will make sure sec. shalala does the stem cell
issue. Do you have any contacts with arthritus foundation?

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:22-APR-1999 17:17:18.00

SUBJECT: Re: Institute stem cell statements

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP @ EOP [OSTP])
READ:UNKNOWN

TEXT:
If Tim wants to do it fine with me. You can send to jenny and chris.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME: 3-MAY-1999 17:41:28.00

SUBJECT: stem cell

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TEXT:
Talked to Alzeheimers Assn. today. They said their board found no proactical affect on alzeheimers therefore they cannot support it. Even thought NIH writes about it and Congress wants them to come testify, they always decline.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME: 6-MAY-1999 16:23:14.00

SUBJECT: Friday's Meeting - Religious Leaders - Stem Cell

TO: Maureen T. Shea (CN=Maureen T. Shea/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TEXT:
Rachel Levinson, from OSTP, who really tracks the stem cell thought you might be interested in this meeting occuring tomorrow. FYI.
---------- Forwarded by Barbara D. Woolley/WHO/EOP on 05/06/99 04:22 PM ----------

Rachel E. Levinson 05/06/99 04:07:59 PM

Record Type: Record

To: Barbara D. Woolley/WHO/EOP@EOP
cc:
Subject: Friday's Meeting

info about tomorrow's NBAC meeting

---------- Forwarded by Rachel E. Levinson/OSTP/EOP on 05/06/99 04:07 PM ----------

"Quinlan, Margaret (OD)" <QuinlanM@od6100m1.od.nih.gov>
05/04/99 09:30:24 AM
Record Type: Record

To: Rachel E. Levinson/OSTP/EOP
cc: Donna I. Coleman/OSTP/EOP
Subject: Friday's Meeting

[Sorry about the blank that was sent at first. Good Lord, one would think it
was Monday!!]

In case you have not yet received any of the particulars about this Friday's
meeting, see below.

The next meeting of the National Bioethics Advisory Commission will be

held from 8:30 a.m. to 2:30 p.m.
on Friday, May 7, 1999, at the Riggs Library, Healy Hall, Georgetown University, 37th and O Streets, N.W.,
Washington, DC 20057.

Margaret C. Quinlan
National Bioethics Advisory Commission
6100 Executive Boulevard, Suite 5B01
Rockville, MD 20892-7508
301/402-4325
FAX 301/480-6900
e-mail: mq3p@nih.gov
website: www.bioethics.gov

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME: 6-MAY-1999 17:49:17.00

SUBJECT: alzeheimers - stem cell

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TEXT:
They can do the call as follows. Both of these work for me. Tuesday is
better. She did not have the NIH paper, so I faxed it to her.
1 Monday, may 10 betwen 11:30 - 1:0
2. Tuesday, may 11, after 3:30

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Jonathan M. Young (CN=Jonathan M. Young/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME: 7-MAY-1999 16:17:06.00

SUBJECT: part of my weekly, more to come

TO: Joseph D. Ratner (CN=Joseph D. Ratner/OU=WHO/O=EOP @ EOP [WHO])
READ:UNKNOWN

TEXT:
---------- Forwarded by Jonathan M. Young/WHO/EOP on 05/07/99 04:19 PM ----------

Barbara D. Woolley
05/07/99 12:24:54 PM
Record Type: Record

To: Jonathan M. Young/WHO/EOP
cc:
Subject: part of my weekly, more to come

SENIOR/AGRICULTURE/HEALTH OUTREACH

Meetings: The Vice President announced the Older Women,s League,s Mother, s Day Report on Medicare. I set up a meeting with Marsha Scott and the carve out groups, those organizations that only provide mental health benefits, and the pharmaceutical companies to talk about the White House Conference on Mental Health. I attended an agriculture policy meeting with Sally Katzan. I organized meeting with DPC with the National Assn. of Home Care and the Assn. of American Medical Colleges to talk about Medicare reform. I attended meeting on the Public Charge issue. I attended meeting with OMB and the Assn. of American Medical Colleges to talk about BBA cuts to providers.

Amplification: The following announcements went to our email and fax lists: Vice President,s statement on the Older Women,s League report; Financial Privacy and Consumer Protection; Summit on Youth and Responsibility.

Participation: Provided names for the upcoming mental health conference and the &Race for the Cure8 reception at the Vice President,s residence. I also provided names for the First Ladies event on Asthma.

Constituency Issues: The Leadership Council on Aging met this week. There is some apprehension after their meeting with Chris Jennings that it might look like the Beaux-Thomas plan. They are very much against premium supports and are sending a letter to the President to restate their concerns Medicare reform. On the Older American,s Act

Reauthorization they have limited concerns about a couple of features included in the Administration,s bill, i.e. block granting title VII and the deletion of legal services as a priority.

Ongoing Activities: May is Older American,s Month and I,m inviting in 6 seniors for a Radio Address to receive their proclamation.

Next Week: I have a conference call with the Alzheimer,s Association and OSTP to talk about the stem cell issue. Chris Jennings and I are meeting with AARP, the American Medical Association, American Hospital Association, Nursing Home Industry and the Home Care industry to talk about Medicare reform.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME:10-MAY-1999 10:43:57.00

SUBJECT: URGENT!!! Re: alzeheimers - stem cell

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TEXT:
I can't do Tuesday - is it too late for today?

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:12-MAY-1999 18:22:27.00

SUBJECT: national multiple sc.erosis

TO: Jonathan M. Young (CN=Jonathan M. Young/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TEXT:
do you know where they are on the stem cell issue?

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-MAY-1999 18:04:27.00

SUBJECT: Need to set up 2 phone calls for monday, may 17 on "stem cell issue"

TO: Devorah R. Adler (CN=Devorah R. Adler/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TO: Teresa M. Jones (CN=Teresa M. Jones/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
Chris agreed to do the following two phone calls.

1. Cass Wheeler, American Heart Assn, 30 min
2. Joe Seffrin, American Cancer Society, 30 min

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Devorah R. Adler (CN=Devorah R. Adler/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME:13-MAY-1999 18:07:35.00

SUBJECT: Re: Need to set up 2 phone calls for monday, may 17 on "stem cell issue"

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TEXT:
why does it have to be monday?

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-MAY-1999 12:04:19.00

SUBJECT: Patients Coalition Urging Research - PCURe - Stem Cell - Press Conf - May20

TO: Jennifer M. Palmieri (CN=Jennifer M. Palmieri/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO: Christopher C. Jennings (CN=Christopher C. Jennings/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TO: Sarah A. Bianchi (CN=Sarah A. Bianchi/O=OVP@OVP [UNKNOWN])
READ:UNKNOWN

TO: Mary E. Cahill (CN=Mary E. Cahill/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TO: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TO: Ann F. Lewis (CN=Ann F. Lewis/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

CC: Joseph D. Ratner (CN=Joseph D. Ratner/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

CC: Devorah R. Adler (CN=Devorah R. Adler/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
FYI, on May 20, Thursday, 10:00am, 20 national patient organizations will hold a press conference on Cap Hill announcing the new formation of the above coalition and releasing a new poll regarding research/stem cells. They will also do a congressional staff briefing that day.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME:13-MAY-1999 17:33:55.00

SUBJECT: Stem Cell Follow Up

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TEXT:
FYI

still working on talking points.

---------- Forwarded by Rachel E. Levinson/OSTP/EOP on 05/13/99 05:33 PM ----------

Tim Leshan <TLESHAN@ascb.org>
05/13/99 05:06:18 PM
Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: Stem Cell Follow Up

The patient groups and some scientific groups met on Tuesday to discuss the stem cell advocacy effort. The patient groups will be having a press conference next Thursday, May 20 at 10:00 in the Capitol HC-6 to announce their support for stem cell research. Patients, scientists and possibly an ethicist will speak. The hope is to get some good media coverage. If you want to be involved please contact Penny Catterall at the Alliance for Aging Research at pcatterall@AGINGRESEARCH.ORG.

We also discussed the legislative strategy. I reviewed the recent Hill briefings with Drs. Paul Berg and Roger Pedersen both of which went well but brought out those on the Hill who oppose stem cell research. We reviewed the attached lists of House Appropriations Committee members and where they stand on the stem cell research. Those who are in the Yes column are in support of federal funding of embryonic stem cell research. We now want to begin to visit with all of the members of the committee particularly those we have not spoken to yet. The idea is to do visits on the Hill on May 20 with the patient groups and beyond. The general message being we support stem cell research and we urge you to do no harm. While we are hearing that the Labor-HHS bill may not be marked up until the fall I think its important to get a full count on this issue at this point in the

process on.

I would like to ask you to send me an email with those members on the Appropriations Committee you would be willing to meet with to discuss the stem cell issue. Please let me know by Monday, May 17 who you could meet with, preferably those you have a connection with. I will then create a list of those who have agreed to meet with each office so we can begin to schedule visits in small groups. Please let me know if you have questions. I think we can spread this out over time starting with the patients next week, then some staff visits with those of us in town and finally having other groups bringing in their troops through the summer. We just need to remember the balance Congressman Porter talked about and be sure that we don't make this the only issue and thus stir up trouble. I just heard from Sean Tipton that the draft NBAC report on stem cell research looks very favorable. Please let me know if you have any questions. Thank you.

These groups will be meeting again on Tuesday, May 18 at 2:00 PM at Hill and Knowlton, but I will be out of town that day.

****

Tim Leshan
Director of Public Policy
American Society for Cell Biology
tleshan@ascb.org
www.jscpp.org/jscpp
301-530-7153 (p)
301-530-7139 (f)

- Approstem.doc
- Demsstems.doc

Message Sent
To:_____
fpwhite@mail.faseb.org
Acshipp@aamc.org
Dbmoore@aamc.org
KHendricks@aap.org
susan_quantius@aau.edu
dperry@agingresearch.org
pcatterall@agingresearch.org
Priscilla_Short@ama-assn.org
amp@amprogress.org
aarda@aol.com
apdadc@aol.com
raymstein@aol.com
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EMARINCOLA@ascb.org
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etynes@ccmc.org
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Jsalomon@mail.faseb.org
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jkatz@natlbcc.org
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roberta@womens-health.org

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To:_____
Jcerquone@agingresearch.org
apendleton@anatomy.org
araanan@aps.faseb.org
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psparks@ccmc.org
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lgoldstein@popmail.ucsd.edu
pan@sonic.net
rokelley@uic.edu
nwells@vsadc.com
========== ATTACHMENT 1 ==========
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert ARMS_EXT:[ATTACH.D72]ARMS24447474F.136 to ASCII,
The following is a HEX DUMP:

========== END ATTACHMENT 2 ==========

Stem Cell Issue - Member Count

Republican Appropriators

Members	Yes	NO	No Answer
Bill Young			X
Ralph Regula			
Jery Lewis			X
John Edwards	X		
Harold Rogers			
Joe Skeen		X (Likely)	X
Frank Wolf	X (Likely)		
Tom DeLay		X (Likely)	
Jim Koble			
Ron Packard			
Sonny Callahan	X (Likely)		
Jim Walsh		X	
Charles Taylor		X	
David Hobson			
Erenest Istook		X (Likely)	
Henry Bonilla	X		
Joseph Knollenberg			X
Dan Miller	X (Likely)		
Jay Dickey		X	
Jack Kingston			
Rodney Frelinghuysen			
Roger Wicker	X (Likely)		X
Michael Forbes		X	
George Nethercutt	X		
Duke Cunningham	X		
Todd Tiahrt		X	
Zack Wamp			X
Tom Latham		X	
Anne Northrup		X	
Robert Aderholt			
Jo Ann Emerson			
John Sununu			
Kay Granger			
John Peterson (R-PA)		X (Likely)	

Stem Cell Issue - Member Count

Democrats

Members	Yes	No	No answer
David Obey (D-WI)	X		
John Murtha	X		
Norm Dicks	X		
Martin Sabo			
Julia Dixon			
Steny Hoyer	X (Likely)		
Alan Mollohan		X	
Marcy Captur			
Nancy Pelosi	X		
Peter Visclosky			
Nita Lowey	X		
Jose Serrano			
Rosa DeLauro	X		
James Moran			
John Olver			
Ed Paster			
Carrie Meek			
David Price	X		
Chet Edwards			
Robert Cramer			
James Clyburn			
Maurice Hinchey			
Lucille Roybal-Allarad			
Sam Farr			
Jesse Jackson	X (Likely)		
Carolyn Kilpatrick			
F. Allen Boyd			

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-MAY-1999 18:01:57.00

SUBJECT: Re: Stem Cell Follow Up

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TEXT:
Chris said he would do the 2 calls to ACS and AHA. However he asked if nih would pull together a couple of talking points on how stem reserach benefits cancer and heart. Do you want to call nih or if you want to give me a name and number, I'm happy to do it. I will try and set it up for monday.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME:13-MAY-1999 15:09:39.00

SUBJECT: Re: Patients Coalition Urging Research - PCURe - Stem Cell - Press Conf - May20

TO: Ann F. Lewis (CN=Ann F. Lewis/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TEXT:
They would LOVE to call on us for a statement

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-MAY-1999 18:18:49.00

SUBJECT: Re: Need to set up 2 phone calls for monday, may 17 on "stem cell issue"

TO: Devorah R. Adler (CN=Devorah R. Adler/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TEXT:
I knew you would ask that question. We are on a deadline of Tuesday night for groups to be added to their press material for a, thursday, may 20, press conf on capital hill when a new Coalition for Patients Research will be announced (20 national patient groups) and a new poll will be released. Their are 5 patients groups that we (the WH) are working in the hopes that they will add their names to this list. They are very important to the list. As you know, the stem cell issue is not without its controversy. By Chris calling we hope that it is just another push to say that the WH cares about this issue. By doing it sooner versus later they have more time to do what they need to do to internally to get approval from their boards. As you know, most groups move slowly. It will take me one day to get the groups organized for call and chris has asked for some info from NIH on how stem cell will benefit those with cancer and heart. call me if you have further questions.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP [WHO])

CREATION DATE/TIME:13-MAY-1999 15:55:53.00

SUBJECT: stem cell - ms.

TO: Jonathan M. Young (CN=Jonathan M. Young/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TEXT:
lets see if we can get them on a phone call.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Devorah R. Adler (CN=Devorah R. Adler/OU=OPD/O=EOP [OPD])

CREATION DATE/TIME:13-MAY-1999 18:32:45.00

SUBJECT: Re: Need to set up 2 phone calls for monday, may 17 on "stem cell issue"

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TEXT:
okay. pls talk to elizabeth about times.

RECORD TYPE: PRESIDENTIAL (NOTES MAIL)

CREATOR: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME:13-MAY-1999 15:11:52.00

SUBJECT: Re: Patients Coalition Urging Research - PCURe - Stem Cell - Press Conf - May20

TO: Devorah R. Adler (CN=Devorah R. Adler/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TO: Jennifer M. Palmieri (CN=Jennifer M. Palmieri/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TO: Rachel E. Levinson (CN=Rachel E. Levinson/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO: Christopher C. Jennings (CN=Christopher C. Jennings/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

TO: Joseph D. Ratner (CN=Joseph D. Ratner/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TO: sarah a. bianchi (CN=sarah a. bianchi/O=ovp@ovp [UNKNOWN])
READ:UNKNOWN

TO: Mary E. Cahill (CN=Mary E. Cahill/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TO: Jennifer M. Luray (CN=Jennifer M. Luray/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TO: Barbara D. Woolley (CN=Barbara D. Woolley/OU=WHO/O=EOP@EOP [WHO])
READ:UNKNOWN

TEXT:
---------- Forwarded by Rachel E. Levinson/OSTP/EOP on
05/13/99 03:10 PM ----------

Rachel E. Levinson 05/13/99 03:09:23 PM

Record Type: Record

To: Ann F. Lewis/WHO/EOP@EOP
cc:
Subject: Re: Patients Coalition Urging Research - PCURe - Stem
Cell - Press Conf - May20

They would LOVE to call on us for a statement