# *The* University *of* Western Ontario
## BIOLOGICAL AGENTS REGISTRY FORM
**Approved Biohazards Subcommittee: October 14, 2011**
**Biosafety Website: www.uwo.ca/humanresources/biosafety/**

This form must be completed by each Principal Investigator holding a grant administered by the University of Western Ontario (UWO) or in charge of a laboratory/facility where the use of Level 1, 2 or 3 biological agents is described in the laboratory or animal work proposed. The form must also be completed if any work is proposed involving animals carrying zoonotic agents infectious to humans or involving plants, fungi, or insects that require Public Health Agency of Canada (PHAC) or Canadian Food Inspection Agency (CFIA) permits.

This form must be updated at least every 3 years or when there are changes to the biological agents being used.

Containment Levels will be established in accordance with Laboratory Biosafety Guidelines, 3rd edition, 2004, Public Health Agency of Canada (PHAC) or Containment Standards for Veterinary Facilities, 1st edition 1996, Canadian Food Inspection Agency (CFIA).

Electronically completed forms are to be submitted to Occupational Health and Safety, (OHS), (Support Services Building, Room 4190 or to jstanle2@uwo.ca) for distribution to the Biohazards Subcommittee. For questions regarding this form, please contact the Biosafety Officer at extension 81135 or biosafety@uwo.ca. If there are changes to the information on this form (excluding grant title and funding agencies), contact Occupational Health and Safety for a modification form. See website: www.uwo.ca/humanresources/biosafety.

Please ensure that all questions are fully and clearly answered. Failure to do so will lead to the form being returned, which will cause delays in your approval and frustration for you and your colleagues on the Committee.

**If you are re-submitting this form as requested by the Biohazards Subcommittee, please make modifications to the form in bold print, highlighted in yellow. Please re-submit forms electronically.**

| | |
|---|---|
| PRINCIPAL INVESTIGATOR: | **Gordon Southam** |
| DEPARTMENT: | **Earth Sciences** |
| ADDRESS: | **B&G** |
| PHONE NUMBER: | **83197** |
| EMERGENCY PHONE NUMBER(S): | **519-614-7149 (cell)** |
| EMAIL: | **gsoutham@uwo.ca** |

Location of experimental work to be carried out :

| | | | |
|---|---|---|---|
| Building : | **BGS** | Room(s): | **0074** |
| Building : | | Room(s): | |
| Building : | | Room(s): | |

***For work being performed at Institutions affiliated with the University of Western Ontario, the Safety Officer for the Institution where experiments will take place must sign the form prior to its being sent to the University of Western Ontario Biosafety Officer (See Section 15.0, Approvals).**

FUNDING AGENCY/AGENCIES: **NSERC**
GRANT TITLE(S): **Bacteria-mineral interactions**
UNDERGRADUATE COURSE NAME(IF APPLICABLE):

List all personnel working under Principal Investigators supervision in this location:

| Name | UWO E-mail Address | Date of Biosafety Training |
|---|---|---|
| **Alexandra Pontefract** | **apontefr@uwo.ca** | **November 30, 2010** |
| **Gordon Campbell** | **scamp32@uwo.ca** | **June 20, 2011** |
| **Jenine McCutcheon** | **jmccutc3@uwo.ca** | **January 11, 2012** |
| **Jeremiah Shuster** | **jshuster@uwo.ca** | **April 27, 2010** |
| **Jessica Stromberg** | **jstromb@uwo.ca** | **January 11, 2012** |

| | | |
|---|---|---|
| Liane Loiselle | lloisell@uwo.ca | October 14, 2010 |
| Maija Raudsepp | mraudsep@uwo.ca | Oct 31, 2011 |
| Nahed Mahrous | nmahrous@uwo.ca | September 19, 2010 |

**Please explain how the biological agents are used in your project and how they are stored and disposed of. The BARF without this description will not be reviewed.**

**The Biological Safety Level (BSL) 1 bacterial cultures used in my research are handled using aseptic technique. Cultures are grown, used in experiments, then autoclaved prior to disposal. Minimal stock cultures, typically 10 ml for heterotrophs and 100 ml for phototrophs are maintained for future experimentation.**

**Please include a ONE page research summary or teaching protocol in lay terms.**
**Forms with summaries more than one page will not be reviewed.**

**Any new students who have not had a formal course in microbiology are paired with a graduate student mentor to teach them how to prepare media, how to use an autoclave and how to manipulate cultures using aseptoic technique, i.e., sterile pipettes and a flamed loop.**

## 1.0 Microorganisms

1.1 Does your work involve the use of biological agents? ☒ YES ☐ NO
(non-pathogenic and pathogenic biological agents including but not limited to bacteria and other microorganisms, viruses, prions, parasites or pathogens of plant or animal origin)? If no, please proceed to Section 2.0

Do you use microorganisms that require a permit from the CFIA? ☐ YES ☒ NO
If YES, please give the name of the species _____
What is the origin of the microorganism(s)? _____

Please describe the risk (if any) of escape and how this will be mitigated:
**There is no risk of escape.**

***Please attach the CFIA permit.***

Please describe any CFIA permit conditions:

1.2 Please complete the table below:

| Full Scientific Name of Biological Agent(s)* (Be specific) | Is it known to be a human pathogen? YES/NO | Is it known to be an animal pathogen? YES/NO | Is it known to be a zoonotic agent? YES/NO | Maximum quantity to be cultured at one time? (in Litres) | Source/ Supplier | PHAC or CFIA Containment Level |
|---|---|---|---|---|---|---|
| ***Plectonema boryanum*** | ☐ Yes ☒ No | ☐ Yes ☒ No | ☐ Yes ☒ No | **100 L** | **UTEX485** | ☒ 1 ☐ 2 ☐ 2+ ☐ 3 |
| ***Cupriavidus metallidurans*** | ☐ Yes ☒ No | ☐ Yes ☒ No | ☐ Yes ☒ No | **1 L** | **ATCC43123** | ☒ 1 ☐ 2 ☐ 2+ ☐ 3 |
| ***Desulfovibrio desulfuricans*** | ☐ Yes ☒ No | ☐ Yes ☒ No | ☐ Yes ☒ No | **1 L** | **ATCC13541** | ☒ 1 ☐ 2 ☐ 2+ ☐ 3 |
| ***Methanococcus voltae*** | ☐ Yes ☒ No | ☐ Yes ☒ No | ☐ Yes ☒ No | **1 L** | **ATCCBAA-1334** | ☒ 1 ☐ 2 ☐ 2+ ☐ 3 |
| ***Acidithiobacillus ferrooxidans*** | ☐ Yes ☒ No | ☐ Yes ☒ No | ☐ Yes ☒ No | **1 L** | **ATCC13598** | ☒ 1 ☐ 2 ☐ 2+ ☐ 3 |
| ***Acidithiobacillus thiooxidans*** | ☐ Yes ☒ No | ☐ Yes ☒ No | ☐ Yes ☒ No | **1 L** | **ATCC8085** | ☒ 1 ☐ 2 ☐ 2+ ☐ 3 |
| | ☐ Yes ☐ No | ☐ Yes ☐ No | ☐ Yes ☐ No | | | ☐ 1 ☐ 2 ☐ 2+ ☐ 3 |
| | ☐ Yes ☐ No | ☐ Yes ☐ No | ☐ Yes ☐ No | | | ☐ 1 ☐ 2 ☐ 2+ ☐ 3 |

***Please attach a Material Safety Data Sheet or equivalent from the supplier if the bacterium used is not on this link:***
http://www.uwo.ca/humanresources/docandform/docs/ohs/CFIA_Ecoli_list.pdf

Additional Comments: _____

## 2.0 Cell Culture

2.1 Does your work involve the use of cell cultures? ☐ YES ☒ NO
*(If NO, please proceed to Section 3.0)*

2.2 Please indicate the type of primary cells (i.e. derived from fresh tissue) that will be grown in culture:

| Cell Type | Is this cell type used in your work? | Source of Primary Cell Culture Tissue | AUS Protocol Number |
|---|---|---|---|
| Human | ☐ Yes ☐ No | | Not applicable |
| Rodent | ☐ Yes ☐ No | | |
| Non-human primate | ☐ Yes ☐ No | | |
| Other (specify) | ☐ Yes ☐ No | | |

2.3 Please indicate the type of established cells that will be grown in culture in:

| Cell Type | Is this cell type used in your work? | Specific cell line(s)* | Containment Level of each cell line | Supplier / Source of cell line(s) |
|---|---|---|---|---|
| Human | ☐ Yes ☐ No | | | |
| Rodent | ☐ Yes ☐ No | | | |
| Non-human primate | ☐ Yes ☐ No | | | |
| Other (specify) | ☐ Yes ☐ No | | | |

***Please attach a Material Safety Data Sheet or equivalent from the supplier. (For more information, see www.atcc.org)***

2.4 For above named cell types(s) indicate PHAC or CFIA containment level required ☐ 1 ☐ 2 ☐ 2+ ☐ 3

Additional Comments: _____

## 3.0 Use of Human Source Materials

3.1 Does your work involve the use of human source materials? ☐ YES ☒ NO
If no, please proceed to Section 4.0

3.2 Indicate in the table below the Human Source Material to be used.

| **Human Source Material** | **Source/Supplier /Company Name** | **Is Human Source Material Infected With An Infectious Agent? YES/UNKNOWN** | **Name of Infectious Agent (If applicable)** | **PHAC or CFIA Containment Level (Select one)** |
|---|---|---|---|---|
| Human Blood (whole) or other Body Fluid | | ☐ Yes ☐ Unknown | | ☐1 ☐2 ☐2+ ☐3 |
| Human Blood (fraction) or other Body Fluid | | ☐ Yes ☐ Unknown | | ☐1 ☐2 ☐2+ ☐3 |
| Human Organs or Tissues (unpreserved) | | ☐ Yes ☐ Unknown | | ☐1 ☐2 ☐2+ ☐3 |
| Human Organs or Tissues (preserved) | | Not Applicable | | Not Applicable |

Additional Comments: _____

## 4.0 Genetically Modified Organisms and Cell lines

4.1 Will genetic modifications be made to the microorganisms, biological agents, or cells described in Sections 1.0 and 2.0? ☐ YES ☒ NO If **NO**, please proceed to Section 5.0

4.2 Will genetic modification(s) involving plasmids be done? ☐ YES, complete table below ☐ NO

| Bacteria Used for Cloning * | Plasmid(s) ** | Source of Plasmid | Gene Transformed or Transfected | Will there be a change due to transformation of the bacteria? | Will there be a change in the pathogenicity of the bacteria after the genetic modification? | What are the consequences due to the transformation of the bacteria? |
|---|---|---|---|---|---|---|
| | | | | | | |

**** Please attach a Material Safety Data Sheet or equivalent if available.***
***** Please attach a plasmid map.***
******No Material Safety Data Sheet is required for the following strains of E. coli:***
http://www.uwo.ca/humanresources/docandform/docs/ohs/CFIA_Ecoli_list.pdf

4.3 Will genetic modification(s) of bacteria and/or cells involving viral vectors be made?
☐ YES, complete table below ☐ NO

| Virus Used for Vector Construction | Vector(s) * | Source of Vector | Gene(s) Transduced | Describe the change that results from transduction |
|---|---|---|---|---|
| | | | | |

**** Please attach a Material Safety Data Sheet or equivalent.***

4.3.1 Will virus be replication defective? ☐ YES ☐ NO

4.3.2 Will virus be infectious to humans or animals? ☐ YES ☐ NO

4.3.3 Will this be expected to increase the containment level required? ☐ YES ☐ NO

**5.0 Will genetic sequences from the following be involved?**

- HIV ☒ NO ☐ YES, specify
- HTLV 1 or 2 or genes from any Level 1 or Level 2 pathogens ☐ NO ☐ YES, specify
- SV 40 Large T antigen ☒ NO ☐ YES
- E1A oncogene ☒ NO ☐ YES
- Known oncogenes ☒ NO ☐ YES, specify
- Other human or animal pathogen and or their toxins ☒ NO ☐ YES, specify

5.1 Is any work being conducted with prions or prion sequences? ☒ NO ☐ YES

Additional Comments: _____

See E-mail

**6.0 Human Gene Therapy Trials**

6.1 Will human clinical trials be conducted involving a biological agent? ☐ YES ☒ NO
(including but not limited to microorganisms, viruses, prions, parasites or pathogens of plant or animal origin)
If no, please proceed to Section 7.0

6.2 If YES, please specify which biological agent will be used:
Please attach a full description of the biological agent.

6.3 Will the biological agent be able to replicate in the host? ☐ YES ☐ NO

6.4 How will the biological agent be administered?

6.5 Please give the Health Care Facility where the clinical trial will be conducted:

6.6 Has human ethics approval been obtained? ☐ YES, number: ☐ NO ☐ PENDING

**7.0 Animal Experiments**

7.1 Will live animals be used? ☐ YES ☒ NO If **NO**, please proceed to section 8.0

7.2 Name of animal species to be used

7.3 AUS protocol #

7.4 List the location(s) for the animal experimentation and housing.

7.5 Will any of the agents listed in section 4.0 be used in live animals
☐ NO ☐ YES, specify:

7.6 Will the agent(s) be shed by the animal:
☐ YES ☐ NO, please justify:

**8.0 Use of Animal species with Zoonotic Hazards**

8.1 Will any animals with zoonotic hazards or their organs, tissues, lavages or other body fluids including blood be used (see list below)? ☐ YES ☒ NO - If **NO**, please proceed to section 9.0

8.2 Will live animals be used? ☐ YES ☐ NO

8.3 If **YES**, please specify the animal(s) used:

| | | |
|---|---|---|
| ♦ Pound source dogs | ☐ YES | ☐ NO |
| ♦ Pound source cats | ☐ YES | ☐ NO |
| ♦ Cattle, sheep or goats | ☐ YES, species | ☐ NO |
| ♦ Non-human primates | ☐ YES, species | ☐ NO |
| ♦ Wild caught animals | ☐ YES, species & colony # | ☐ NO |
| ♦ Birds | ☐ YES, species | ☐ NO |
| ♦ Others (wild or domestic) | ☐ YES, specify | ☐ NO |

8.4 If no live animals are used, please specify the source of the specimens:

**9.0 Biological Toxins and Hormones**

9.1 Will toxins or hormones of biological origin be used? ☐ YES ☒ NO If **NO**, please proceed to Section 10.0

9.2 If YES, please name the toxin(s) or hormones(s)
Please attach information, such as a Material Safety Data Sheet, for the toxin(s) used.

9.3 What is the $LD_{50}$ (specify species) of the toxin or hormone

9.4 How much of the toxin or hormone is handled at one time*?

9.5 How much of the toxin or hormone is stored*?

9.6 Will any biological toxins or hormones be used in live animals? ☐ YES ☐ NO
If **YES**, Please provide details:

*For information on biosecurity requirements, please see:
http://www.uwo.ca/humanresources/docandform/docs/healthandsafety/biosafety/Biosecurity_Requirements.pdf

Additional Comments: _____

**10.0 Insects**

10.1 Do you use insects? ☐ YES ☒ NO - If **NO**, please proceed to Section 11.0

10.2 If YES, please give the name of the species.

10.3 What is the origin of the insect?

10.4 What is the life stage of the insect?

10.5 What is your intention? ☐ Initiate and maintain colony, give location:
☐ "One-time" use, give location:

10.6 Please describe the risk (if any) of escape and how this will be mitigated:

10.7 Do you use insects that require a permit from the CFIA permit? ☐ YES ☐ NO
If **YES**, Please attach the CFIA permit & describe any CFIA permit conditions:

**11.0 Plants**

11.1 Do you use plants? ☐ YES ☒ NO - If **NO**, please proceed to Section 12.0

11.2 If YES, please give the name of the species.

11.3 What is the origin of the plant?

11.4 What is the form of the plant (seed, seedling, plant, tree…)?

11.5 What is your intention? ☐ Grow and maintain a crop ☐ "One-time" use

11.6 Do you do any modifications to the plant? ☐ YES ☐ NO
If yes, please describe:

11.7 Please describe the risk (if any) of loss of the material from the lab and how this will be mitigated:

11.8 Is the CFIA permit attached? ☐ YES ☐ NO
If **YES**, Please attach the CFIA permit & describe any CFIA permit conditions:

**12.0 Import Requirements**

12.1 Will any of the above agents be imported? ☐ YES, country of origin ☒ NO
If **NO**, please proceed to Section 13.0

12.2 Has an Import Permit been obtained from HC for human pathogens? ☐ YES ☐ NO

12.3 Has an import permit been obtained from CFIA for animal or plant pathogens? ☐ YES ☐ NO

12.4 Has the import permit been sent to OHS? ☐ YES, please provide permit # ☐ NO

**13.0 Training Requirements for Personnel Named on Form**

All personnel named on the above form who will be using any of the above named agents are required to attend the following training courses given by OHS:

- Biosafety
- Laboratory and Environmental/Waste Management Safety
- WHMIS (Western or equivalent)
- Employee Health and Safety Orientation

As the Principal Investigator, I have ensured that all of the personnel named on the form who will be using any of the biological agents in Sections 1.0 to 9.0 have been trained.

***An X in the check box indicates you agree with the above statement...*** ☒
***Enter Your Name*** Gordon Southam ***Date:*** January 5, 2012

**14.0 Containment Levels**

14.1 For the work described in sections 1.0 to 9.0, please indicate the highest HC or CFIA Containment Level required. ☒ 1 ☐ 2 ☐ 2+ ☐ 3

14.2 Has the facility been certified by OHS for this level of containment?
☐ YES, location and date of most recent biosafety inspection:
☐ NO, please certify
☒ NOT REQUIRED for Level 1 containment

14.3 Please indicate permit number (not applicable for first time applicants):

**15.0 Procedures to be Followed**

15.1 Are additional risk reduction measures necessary beyond containment level 1, 2, 2+ or 3 measures that are unique to these agents? ☐ YES ☒ NO
If **YES** please describe:

15.2 Please outline what will be done if there is an exposure to the biological agents listed such as a needlestick injury or an accidental splash:
**Follow procedures outlined in section 3.5 of the UWO Biosafety Guidelines and Procedures Manual.**

15.3 As the Principal Investigator, I will ensure that this project will follow the Western Biosafety Guidelines and Procedures Manual for Containment Level 1 & 2 Laboratories (and the Level 3 Facilities Manual for Level 3 projects). I will ensure that UWO faculty, staff and students working in my laboratory have an up-to-date Hazard Communication Form, found at http://www.shs.uwo.ca/workplace/workplacehealth.html

***An X in the check box indicates you agree with the above statement...*** ☒
***Enter Your Name*** Gordon Southam ***Date:*** January 5, 2012

15.4 Additional Comments: _____

**16.0 Approvals**

1) UWO Biohazards Subcommittee:
SIGNATURE: _____
Date: _____

2) Safety Officer for the University of Western Ontario
SIGNATURE: _____
Date: _____

3) Safety Officer for Institution where experiments will take place (if not UWO):
SIGNATURE: _____
Date: _____

Approval Number: _____ Expiry Date (3 years from Approval): _____

Special Conditions of Approval:

**Subject:** Re: Biological Agents Registry Form - Southam - EXPIRED
**From:** Gordon Southam <gsoutham@uwo.ca>
**Date:** Tue, 24 Jan 2012 16:05:16 -0500
**To:** Jennifer Stanley <jstanle2@uwo.ca>

E-mail

Yes!!!!
G.

On 2012-01-24, at 3:58 PM, Jennifer Stanley wrote:

> Hi Dr, Southam
> One "X" was missed...
>
> **5.0 Will genetic sequences from the following be involved?**
>
> ¨ HIV NO YES, specify
>
> ¨ HTLV 1 or 2 or genes from any Level 1 or Level 2 pathogens NO YES, specify
>
> ¨ SV 40 Large T antigen NO YES
>
> ¨ E1A oncogene NO YES
>
> ¨ Known oncogenes NO YES, specify
>
> Other human or animal pathogen and or their toxins NO YES, specify
>
> **Can I assume that "** HTLV 1 or 2 or genes from any Level 1 or Level 2 pathogens" is NO?
>
> Regards
> Jennifer
>
> -------- Original Message --------
> **Subject:**Re: Biological Agents Registry Form - Southam - EXPIRED
> **Date:**Tue, 24 Jan 2012 14:25:24 -0500
> **From:**Gordon Southam <gsoutham@uwo.ca>
> **To:**Jennifer Stanley <jstanle2@uwo.ca>
>
> Hi J,
> Better?
>
> <barf_Southam.doc><Attached Message Part.html>

**Subject:** Re: Biological Agents Registry Form - Southam - EXPIRED
**From:** Gordon Southam <gsoutham@uwo.ca>
**Date:** Tue, 24 Jan 2012 16:29:19 -0500
**To:** Jennifer Stanley <jstanle2@uwo.ca>

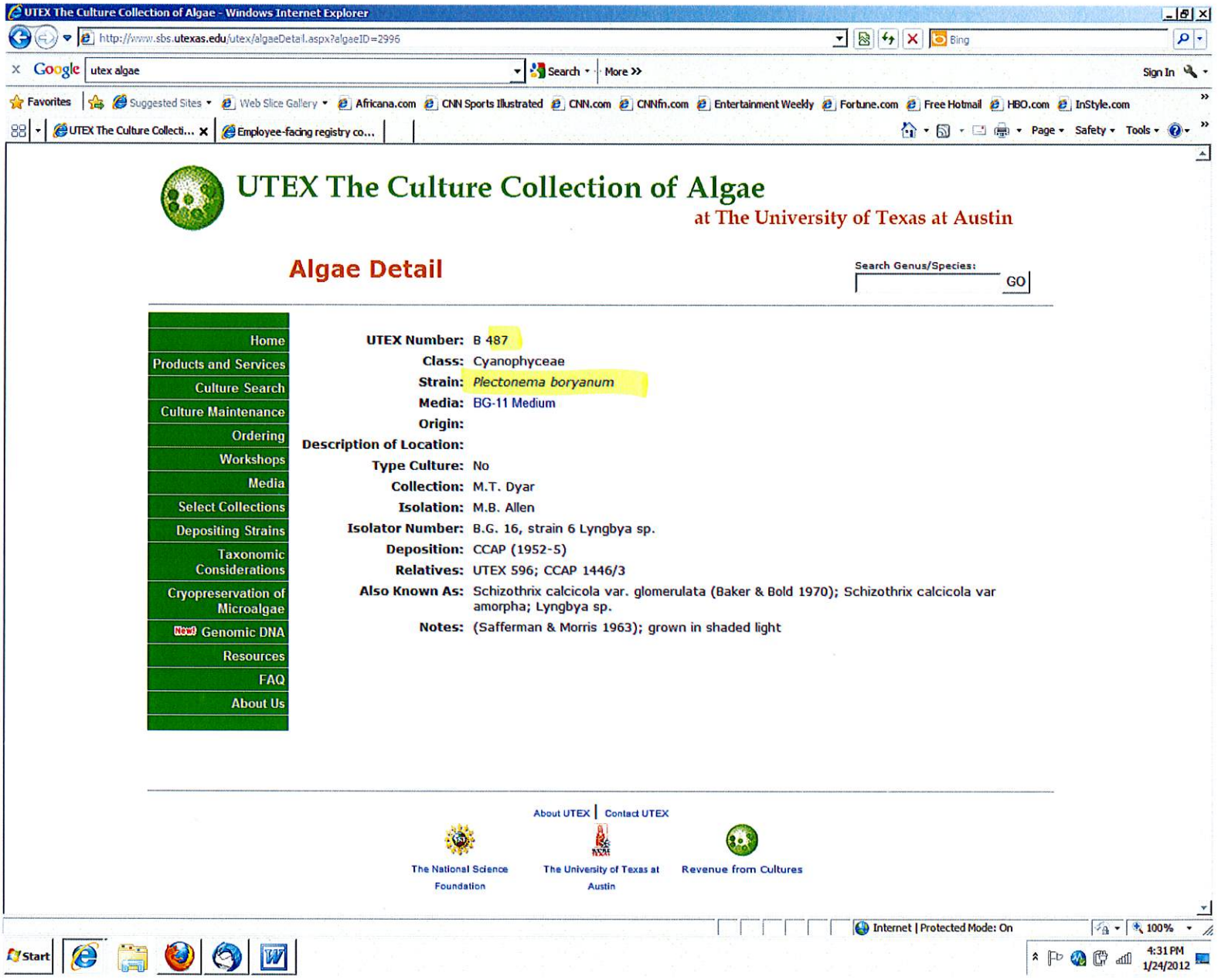
H Jennifer,
They had a contamination 'issue' with the culture and are currently trying to get it back. Strain 487 (or the others) are comparable Re. biosafety.
G.

On 2012-01-24, at 4:19 PM, Jennifer Stanley wrote:

> Hi there
> We were unable to find information on the UTEX website on #485.
> Please clarify,
> Jennifer

Gordon Southam, Professor
Director, Centre for Environment and Sustainability
The University of Western Ontario
Phone: 519-661-3197
FAX: 519-661-3198
Email: gsoutham@uwo.ca

http://www.uwo.ca/earth/people/faculty/southam.html
http://www.uwo.ca/biology/Faculty/southam/index.htm
http://www.uwo.ca/enviro/Contact%20Information/contactusindex.html


UTEX The Culture Collection of Algae - Windows Internet Explorer
http://www.sbs.utexas.edu/utex/algaeDetail.aspx?algaeID=2996
utex algae
Search
More
Sign In
Favorites
Suggested Sites
Web Slice Gallery
Africana.com
CNN Sports Illustrated
CNN.com
CNNfn.com
Entertainment Weekly
Fortune.com
Free Hotmail
HBO.com
InStyle.com
UTEX The Culture Collecti...
Employee-facing registry co...
Page
Safety
Tools
UTEX The Culture Collection of Algae
at The University of Texas at Austin
Algae Detail
Search Genus/Species:
GO
Home
Products and Services
Culture Search
Culture Maintenance
Ordering
Workshops
Media
Select Collections
Depositing Strains
Taxonomic Considerations
Cryopreservation of Microalgae
New! Genomic DNA
Resources
FAQ
About Us
UTEX Number: B 487
Class: Cyanophyceae
Strain: Plectonema boryanum
Media: BG-11 Medium
Origin:
Description of Location:
Type Culture: No
Collection: M.T. Dyar
Isolation: M.B. Allen
Isolator Number: B.G. 16, strain 6 Lyngbya sp.
Deposition: CCAP (1952-5)
Relatives: UTEX 596; CCAP 1446/3
Also Known As: Schizothrix calcicola var. glomerulata (Baker & Bold 1970); Schizothrix calcicola var amorpha; Lyngbya sp.
Notes: (Safferman & Morris 1963); grown in shaded light
About UTEX | Contact UTEX
The National Science Foundation
The University of Texas at Austin
Revenue from Cultures
Internet | Protected Mode: On
100%
Start
4:31 PM
1/24/2012

Bacteria

ATCC® Number: **43123™** Order this Item Price: **$255.00**

| | |
|---|---|
| Organism: | *Cupriavidus metallidurans* (Goris et al.) Vandamme and Coenye deposited as *Alcaligenes eutrophus* Davis |
| Designations: | CH34 [CIP 107179, DSM 2839, LMG 1195] |
| Isolation: | sedimentation pond in a zinc factory |
| Depositor: | M Mergeay |
| Biosafety Level: | 1 |
| Shipped: | freeze-dried |
| Growth Conditions: | ATCC medium3: Nutrient agar or nutrient broth<br>**Temperature:** 30.0°C |
| Permits/Forms: | In addition to the MTA mentioned above, other ATCC and/or regulatory permits may be required for the transfer of this ATCC material. Anyone purchasing ATCC material is ultimately responsible for obtaining the permits. Please click here for information regarding the specific requirements for shipment to your location. |
| Cross References: | Nucleotide (GenBank) : CP000352Ralstonia metallidurans CH34, complete genome.<br>Nucleotide (GenBank) : X58441Ralstonia sp. CH34 insertion sequence IS1086. |
| Type Strain: | yes [53634] [90004] [91721] |
| Comments: | Genome sequenced strain |
| Applications: | produces zinc-binding protein [8236]<br>resistant to cadmium [804]<br>resistant to cobalt [804]<br>resistant to mercury [804]<br>resistant to nickel [804]<br>resistant to zinc [804] |
| Related Products: | purified DNA: ATCC 43123D-5 |

**Related Links ▸**

NCBI Entrez Search
Make a Deposit
Frequently Asked Questions
Material Transfer Agreement
Technical Support
Related Products

**BioProducts**

Cell, microbial and molecular genomics products for the life sciences

**BioServices**

Bio-materials management; basic repository to complex partnership-level services

**BioStandards**

Biological Reference Material and Consensus Standards for the life science community

References:

Bacteria

ATCC® Number: **13541™** Order this Item Price: **$255.00**

| | |
|---|---|
| Organism: | *Desulfovibrio desulfuricans* subsp. *desulfuricans* (Beijerinck) Kluyver and van Niel |
| Designations: | NCIB 9467 |
| Isolation: | soil |
| Depositor: | NCIMB |
| History: | ATCC <<--NCIMB<<--J. Postgate (<<--- H. Hayward) |
| Biosafety Level: | 1 |
| Shipped: | freeze-dried |
| Growth Conditions: | ATCC medium1249: Modified Baar's medium for sulfate reducers<br>Alternate medium 42: Desulfovibrio medium<br>**Temperature:** 30.0°C<br>Duration: anaerobic |
| Permits/Forms: | In addition to the MTA mentioned above, other ATCC and/or regulatory permits may be required for the transfer of this ATCC material. Anyone purchasing ATCC material is ultimately responsible for obtaining the permits. Please click here for information regarding the specific requirements for shipment to your location. |
| Cross References: | Nucleotide (GenBank) : A30646 D.desulfuricans ATCC 13541 16S rRNA region. |
| Comments: | DNA composition [10265]<br>Bacteriophage induction [10822] |
| Applications: | degrades choline [7495] [7519] [7732] |
| References: | 7495: Hayward HR, Stadtman TC. Anaerobic degradation of choline. 1. Fermentation of choline by an anaerobic, cytocgrine-producing bacterium, Vibrio cholinicus., n. sp.. J. Bacteriol. 78: 557-561, 1959.<br>7519: Baker FD, et al. Choline fermentation by Desulfovibrio desulfuricans. J. Bacteriol. 84: 973-978, 1962. PubMed: 13969140<br>7732: . . Z. Allg. Mikrobiol. 1: 142-149, 1961.<br>10265: Saunders GF, et al. Base composition of deoxyribonucleic acid of sulfate-reducing bacteria deduced from buoyant density measurements in cesium chloride. J. Bacteriol. 87: 1073-1078, 1964. PubMed: 5874533<br>10822: Seyedirashti S, et al. Induction and partial purification of bacteriophages from Desulfovibrio vulgaris (Hildenborough) and Desulfovibrio desulfuricans ATCC 13541. J. Gen. Microbiol. 137: 1545-1549, 1991. PubMed: 1683398 |

**Related Links ▸**

NCBI Entrez Search
Make a Deposit
Frequently Asked Questions
Material Transfer Agreement
Technical Support
Related Products



Return to Top

Bacteria

ATCC® Number: **BAA-1334™** Order this Item Price: **$205.00**

| | |
|---|---|
| Organism: | *Methanococcus voltae* Balch and Wolfe |
| Designations: | A3 |
| Isolation: | salt marsh |
| Depositor: | WB Whitman |
| Biosafety Level: | 1 |
| Shipped: | frozen |
| Growth Conditions: | ATCC medium 1439: Methanogenium medium<br>**Atmosphere:** hydrogen (H2), 80%; carbon dioxide (CO2), 20%<br>**Temperature:** 37.0°C |
| Permits/Forms: | In addition to the MTA mentioned above, other ATCC and/or regulatory permits may be required for the transfer of this ATCC material. Anyone purchasing ATCC material is ultimately responsible for obtaining the permits. Please click here for information regarding the specific requirements for shipment to your location. |
| Cross References: | Nucleotide (GenBank) : ABHB01000000Methanococcus voltae A3, whole genome shotgun sequencing project. |
| Comments: | Genome sequencing strain |
| Related Products: | purified DNA: ATCC BAA-1334D-5 |
| References: | 92614: Keswani J, et al. Phylogeny and Taxonomy of Mesophilic Methanococcus spp. and Comparison or rRNA, DNA Hybridization, and Phenotypic Methods.. Int. J. Syst. Bacteriol. 46: 727-735, 1996.<br>92615: Wood Alvin G, et al. Isolation and Characterization of an Archaebacterial Viruslike Particle from Methanococcus voltae A3.. J. Bacteriol. 171: 93-98, 1989. |

**Related Links**

NCBI Entrez Search
Make a Deposit
Frequently Asked Questions
Material Transfer Agreement
Technical Support
Related Products

**BioProducts**

Cell, microbial and molecular genomics products for the life sciences

**BioServices**

Bio-materials management; basic repository to complex partnership-level services

**BioStandards**

Biological Reference Material and Consensus Standards for the life science community

Return to Top

Bacteria

ATCC® Number: **13598™** Order this Item Price: **$205.00**

| | |
|---|---|
| Organism: | *Acidithiobacillus ferrooxidans* (Temple and Colmer) Kelly and Wood deposited as *Thiobacillus ferrooxidans* Temple and Colmer |
| Depositor: | AP Harrison |
| Biosafety Level: | 1 |
| Shipped: | test tube |
| Growth Conditions: | ATCC medium2039: Acidithiobacillus ferrooxidans medium<br>**Temperature:** 26.0°C |
| Permits/Forms: | In addition to the MTA mentioned above, other ATCC and/or regulatory permits may be required for the transfer of this ATCC material. Anyone purchasing ATCC material is ultimately responsible for obtaining the permits. Please click here for information regarding the specific requirements for shipment to your location. |
| Cross References: | Nucleotide (GenBank) : AB189132Acidithiobacillus ferrooxidans gene, 16S-23S rDNA region, strain: ATCC 13598. |
| Comments: | taxonomy [7657] |
| Applications: | produces hydrogen sulfide:ferric ion oxidoreductase [7190] |
| Related Products: | purified DNA:ATCC 13598D |
| References: | 7190: Sugio T, et al. Existence of a hydrogen sulfide:Ferric ion oxidoreductase in iron-oxidizing bacteria. Appl. Environ. Microbiol. 58: 431-433, 1992.<br>7657: Hutchinson M, et al. Taxonomy of the acidophilic thiobacilli. J. Gen. Microbiol. 44: 373-381, 1966. PubMed: 5971385 |

**Related Links ▸**

NCBI Entrez Search
Make a Deposit
Frequently Asked Questions
Material Transfer Agreement
Technical Support
Related Products

**BioProducts**

- Cell, microbial and molecular genomics products for the life sciences

**BioServices**

- Bio-materials management; basic repository to complex partnership-level services

**BioStandards**

- Biological Reference Material and Consensus Standards for the life science community

Return to Top

Bacteria

ATCC® Number: **8085™** Order this Item Price: **$40.00**

Preceptrol® Culture

| | |
|---|---|
| Organism: | *Acidithiobacillus thiooxidans* (Waksman and Joffe) Kelly and Wood deposited as *Thiobacillus thiooxidans* Waksman and Joffe |
| Designations: | [IFO 13701, NCIB 9112] |
| Depositor: | RL Starkey |
| Biosafety Level: | 1 |
| Shipped: | test tube |
| Growth Conditions: | ATCC medium125: Thiobacillus medium<br>**Temperature:** 26.0°C |
| Permits/Forms: | In addition to the MTA mentioned above, other ATCC and/or regulatory permits may be required for the transfer of this ATCC material. Anyone purchasing ATCC material is ultimately responsible for obtaining the permits. Please click here for information regarding the specific requirements for shipment to your location. |
| Cross References: | Nucleotide (GenBank) : M11541 Thiobacillus thiooxidans 5S ribosomal RNA. |

**Related Links**

NCBI Entrez Search
Make a Deposit
Frequently Asked Questions
Material Transfer Agreement
Technical Support
Related Products

**BioProducts**

Cell, microbial and molecular genomics products for the life sciences

**BioServices**

Bio-materials management; basic repository to complex partnership-level services

**BioStandards**

Biological Reference Material and Consensus Standards for the life science community

Return to Top