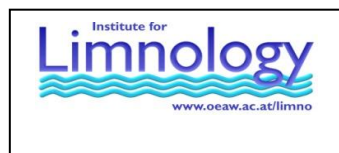


Announcement for a mutagenisation workshop on the toxigenic cyanobacterium *Planktothrix*

Organized by Guntram Christiansen & Rainer Kurmayer



Time:

Course 1: 11 – 15 July 2011 (arrival 10 July, departure 16 July)

Course 2: 21 – 22 July 2011 (arrival 20 July, departure 23 July)

Location: Institute for Limnology, Austrian Academy of Sciences, Technology Center, Technoparkstrasse 4, 5310 Mondsee, AUSTRIA/EUROPE

Background:

Genetic manipulation techniques are fundamental to our understanding of the biology of cellular processes. While several cyanobacteria are amenable to genetic manipulation, genera with an interesting secondary metabolism in general are more difficult to manipulate.

In that respect the toxin-producing freshwater cyanobacterium *Planktothrix* spp. is an exception as particular strains have been repeatedly genetically manipulated and genes involved in secondary metabolism such as microcystin, aeruginoside, microviridin synthesis could be inactivated by insertional mutagenesis.

Therefore we propose two courses of lab training on our mutagenesis protocol to manipulate strains of *Planktothrix agardhii* and *Planktothrix rubescens*.

It is planned that max. **15 participants (per course)** will be trained in the preparation of constructs for homologous recombination and subsequent transformation protocols. Since the growth of the mutants will take time (12 weeks), participants will be informed about the success of their mutagenisation experiments via posting photographs on the growth of the mutants on a website. The course language will be English.

We plan to offer **two alternative training courses** which will be held in Mondsee, Austria. Course 1 will include a practical guide to the construction of vectors for homologous recombination, and their preparation and subsequent *Planktothrix* mutagenesis (5 days). This course is thought for participants with little experience in molecular biology. Course 2 will deal exclusively with the *Planktothrix* mutagenesis protocol (2 days). This much shorter course is meant for experienced molecular biologists who are skilled in DNA construct preparation.

Please send your filled **application form** (attached to this e-mail) including your research field and your previous experience in molecular biological techniques to planktothrix@gmail.com . **Deadline for registration is 15 April 2011.** The order of application as well as the level of expertise in molecular biological techniques will decide on the approval of the application. All applicants will be informed on the **decision** of their participation at **29 April 2011.** The courses will not take place with less than 3 participants.

Registration fees:

Registration fee **course 1** – for 5 days: €500 (EURO)

Registration fee **course 2** – for 2 days: €200 (EURO)

Reduced registration for **students course 1** – for 5 days: € 400

Reduced registration for **students course 2** – for 2 days: € 150

please note: for reduced fees we require a copy of your student ID card with expiry date and a confirmation of your supervisor.

As soon as you are informed on your approval for participation, we would ask you to transfer the adequate fee to the project account within one week. Please take care to pay all fees including bank charges from outside Austria and send us your personal data so that we can assign it to the participants list. If we do not receive your **payment on our account until 16 Mai 2011** we will invite the next applicant on the list.

Project account:

Account name: Dr. Rainer Kurmayer P20231
 bank name: Salzburger Sparkasse
 BIC/SWIFT: SBGSAT2SXXX
 IBAN: AT062040400040408015

Tentative Agenda: Course 1 (Technologiezentrum = Technology Center)

Daily schedule: 09:00am – approx. 18:00pm

Pick-up service from accommodations at appr. 08:30am and transfer to Technology Center.

Monday, July 11	Lecture: Introduction into the construction of vectors for homologous recombination (G. Christiansen) PCR amplification of the gene of interest from <i>Planktothrix</i> genomic DNA, Bench work: Ligation of amplicons into cloning vector, transformation of <i>E. coli</i> host
Tuesday, July 12	Bench work: Colony PCR with transformed <i>E. coli</i> , over night culturing of positive clones
	Lecture: Introduction to genetic manipulation techniques in cyanobacteria (G. Christiansen) Lecture: Introduction to the genome of <i>Planktothrix agardhii</i> (R. Kurmayer)
Wednesday, July 13	Bench work: Plasmid mini preparation, restriction and ligation of the resistance marker gene into the linearized plasmid, transformation of <i>E. coli</i> host
Thursday, July 14	Bench work: Colony PCR with transformed <i>E. coli</i> , over night culturing of positive clones
	Lecture: Electroporation for introducing foreign DNA and cultivation of mutants (G. Christiansen)
Friday, July 15	Bench work: Plasmid mini preparation of the constructs and delivery into <i>Planktothrix</i> by electroporation
optional	
Sunday, July 17	Bench work: Addition of antibiotics and starting the selection phase

Tentative Agenda: Course 2 (Technologiezentrum = Technology Center)

Daily schedule: 09:00am – approx. 18:00pm

Pick-up service from accommodations at appr. 08:30am and transfer to Technology Center.

Thursday, July 21	Lecture: Introduction to the genome of <i>Planktothrix agardhii</i> (R. Kurmayer) Lecture: Electroporation for introducing foreign DNA and cultivation of <i>Planktothrix</i> mutants (G. Christiansen)
Friday, July 22	Bench work: Full mutagenesis protocol for <i>Planktothrix</i> (culture treatment, vector linearization, electroporation)
optional	
Sunday, July 24	Bench work: Addition of antibiotics and starting the selection phase

Participants are encouraged to bring laptop computers with them. There will be free online access in the Technology center. Please bring your lab coat (if available).

Travel to Mondsee:

by air:

via Munich airport – GERMANY

<http://www.munich-airport.de/en/consumer/index.jsp>

take the train from Munich Airport to „München Ostbahnhof“, (S-Bahn direction Herrsching), then take the train to Salzburg „Hauptbahnhof“, 2.5 h, then take bus No 140 from “Salzburg” in front of railway station to Mondsee (final destination, “Mondsee Busterminal”)

<http://www.postbus.at/en/index.jsp>

via Vienna airport – AUSTRIA

<http://www.viennaairport.com/jart/prj3/va/main.jart?rel=en&content-id=1249344074214&reserve-mode=active>

bus shuttle to railway station “Wien Westbahnhof”

<http://www.viennaairport.com/jart/prj3/va/main.jart?rel=en&content-id=1249344074246&reserve-mode=active>

train to Salzburg railway station

then take bus No 140 from “Salzburg” in front of railway station to Mondsee (final destination, “Mondsee Busterminal”) <http://www.postbus.at/en/index.jsp>

via Salzburg Airport – AUSTRIA <http://engl.salzburg-airport.com/fluginfo.html>

take bus No 2 from “Airport Center” to Salzburg railway station (“Hauptbahnhof”)

<http://www.stadtbus.at/printcontent.php?id=1165&linie=2>

then take bus No 140 from “Salzburg” in front of railway station to Mondsee (final destination, “Mondsee Busterminal”) <http://www.postbus.at/en/index.jsp>

by train:

via Salzburg

Salzburg railway station → take bus No 140 from “Salzburg” in front of railway station to Mondsee (final destination, “Mondsee Busterminal”) <http://www.postbus.at/en/index.jsp>

by car:

Highway A1 Vienna-Salzburg, exit Mondsee, direction “Straßwalchen” or “Zell am Moos” to Technologiezentrum or direction “Mondsee” to Mondsee center (see map below or

<http://maps.mondsee.at/?mkt=de&map=true>)

Accommodation:

We propose a few relatively cheap hotels where we would pick you up in the morning and bring you to our intermediate building and bring you back in the evening (as the institute itself is still under reconstruction).

1) Pension Klimesch, Meinrad Guggenbichler-Str. 13, 5310 Mondsee, 06232/2563
(<http://www.oberoesterreich.at/klimesch.mondsee>), prize for single room € 32.--, double room € 32.-- per person, single in a double bed room € 39.--

2) Pension Hemetsberger, Seebadstraße 1, 5310 Mondsee, 06232/4934
(<http://www.seepension.at/en>) , prize for single room € 40.--, double room € 34.--

3) Pension Herved, Hervedstraße 22, 5310 Mondsee, 06232/2171
(<http://www.pensionherved.at>), prize for single room € 34.--, double room € 58.--

4) Gasthof Grüner Baum, Herzog Odilostraße 39, 5310 Mondsee, 06232/2314
(www.gruenerbaum-mondsee.at), prize for single room from € 45.-- to € 50.--

5) Hotel Stabauer, Salzburgerstraße 2, 5310 Mondsee, 06232/2285
(<http://www.mondseeland.org/hotelstabauer.html>), prize for double room from € 57.-- to € 69.— (per person), single in double room from € 42.-- to € 50.--

6) Hotel Krone, Rainerstraße 1, 5310 Mondsee, 06232/2236
(<http://www.booking.com/hotel/at/krone-mondsee.en.html>) prize for single room € 56.-- to € 60.--

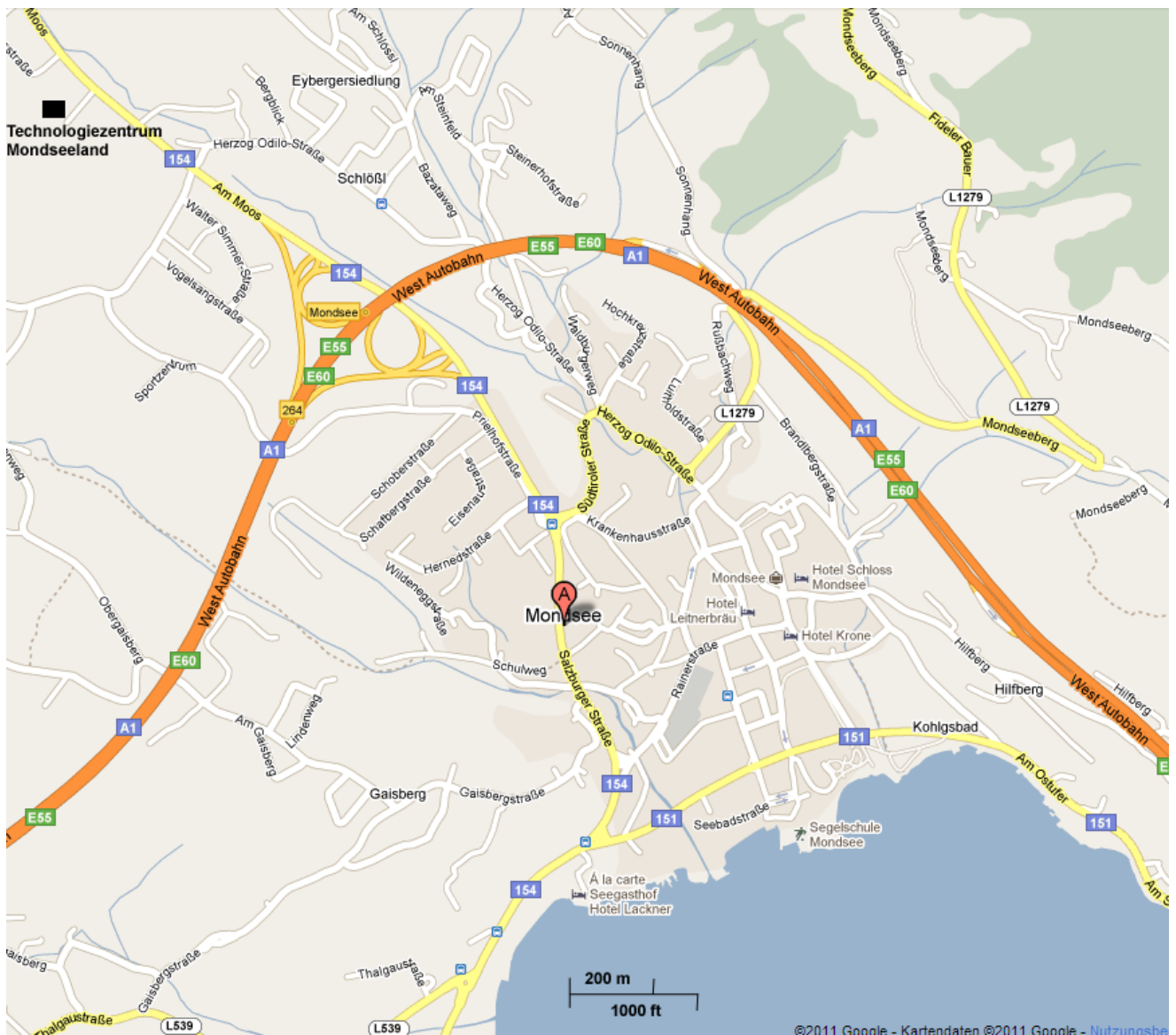
7) Seegasthof & Segelschule Weiße Taube, Schwarzindien 59, 5310 Mondsee, Tel. 06232/2270,
(http://www.mondseeland-info.com/weisse_taub_mondsee.html) double room € 32.—(per person), single room € 42.--

For general information:

Tourist information Mondseeland, Dr. Franz Müller-Straße 3, 5310 Mondsee, 0043 6232/2270
(<http://www.mondsee.at/en>), online booking available.

Climate:

In July Mondsee will be relatively warm and sunny with an average temperature of 20-25 °C. Swimming in Mondsee is always possible at that time. It will also be possible to get a lot of rain, so please do not forget to bring along some rain protection with you.



Above: map of Mondsee with the location of the Technology Center, Technologiezentrum Mondseeland (the main building of the institute is still under construction) and the center of Mondsee (A). **Below:** location of Mondsee next to the city of Salzburg

