The course will be a combination of hands-on experiments, lectures, on-line computer workshops and demonstrations.

Hands-on experiments

- DNA restriction and ligation
- DNA isolation & electrophoresis techniques
- Bacterial transformation
- Polymerase chain reaction analysis of recombinant bacteria
- Plasmid extraction and purification
- Automated DNA sequencing
- Computer analysis of sequence data
- Troubleshooting of common sequencing problems

Lectures/Workshops

- Introduction to basic DNA structure
- PCR
- Cloning in bacteria
- Prokaryotic and eukaryotic expression systems
- DNA sequencing
- Database searching
- Bioinformatics
- Applications of molecular biology to agriculture, medicine, diagnostics, forensics etc.

Demonstrations

- Robotic workstation for PCR preparation
- Quantitative PCR
- DNA particle gun

Tour of the WA State Agricultural Biotechnology Centre

Tell me, I will forget
Show me, I will know
Involve me, I will understand

CONFUCIUS

Invitrogen life technologies

fB fisher biotec australia

QIAGEN

AUSTRALIAN biosearch

murdochuniversity

An "Introduction to DNA Cloning, Sequencing and Analysis"

A five-day course with hands-on experiments in modern molecular biology techniques and bioinformatics.

To be held:
29th January - 2nd February 2007

Organised on behalf of:

State Agricultural Biotechnology Centre
WESTERN AUSTRALIA

And supported by

From Farm to Table

CBBC

www.choose.murdoch.edu.au

MURDOCH UNIVERSITY
PERTH, WESTERN AUSTRALIA

Introduction to DNA Cloning, Sequencing & Analysis

Molecular Biology has become an essential component of many clinical, agricultural, research and teaching areas. The aim of this course is to introduce the participant to the core techniques and principles of molecular biology and bioinformatics.

Each participant will obtain hands-on experience with preparing DNA from plants and plasmids, cutting and pasting (ligating) DNA, transferring plasmids into E. coli., amplifying DNA by polymerase chain reaction (PCR), preparation of DNA for sequencing and sequence analysis including database searches.

This workshop is suited to people from diverse backgrounds including:

- University staff and students
- School Teachers & Lawyers
- Scientific Corporations; research & sales
- Government Departmental staff
- Students wanting to refresh their molecular biology knowledge and skills

No previous knowledge of Molecular Biology is required, though an understanding of biology is desirable.

Presenters - to be confirmed for 2007

Ms Jo Edmondston will present lectures on behalf of the Biotechnology Science Lectureship Initiative, Prof Michael Jones, Director of the WA State Agricultural Biotechnology Centre will present lectures on plant applications of Molecular Biology. An on-line computer workshop will be delivered by the Centre for Bioinformatics and Biological Computing at Murdoch University.

Workshop Details

When?

Monday 29th January to Friday 2nd February 2007; 8.40am – 4.30pm (approx.) each day; last day finishes ~2.00pm.

Where?

WA State Agricultural Biotechnology Centre, Loneragan Building, Murdoch University, Perth.

Cost?

AUD$1050 for external applicants (plus 10% GST); AUD$945 for Murdoch University Staff and Students (GST does not apply).

Provided in the Registration Fee

Detailed course notes, morning and afternoon teas, lunch each day, drinks on final day, supervision by fully qualified demonstrators (1 per 4 participants).

Early Bird Registration

Registrations close Friday 19th January 2007. A late fee of AUD$75 applies after this date.

Course Limit

The course is limited to 32 participants.

Cancellation

An administration fee of AUD$50.00 applies to all calcellations. A cancellation fee of half of the registration fee *may* be applied if your place cannot be filled.

Contact/ Enrolment Address

Andrea Tongue / Lyn Lendrum
Biological Sciences & Biotechnology,
Division of Science & Engineering
Murdoch University, Perth WA 6150
Phone: 08 9360 6116 / 6265
Fax: 08 9310 7084
E-mail: a.tongue@murdoch.edu.au /
L.Lendrum@murdoch.edu.au

Note: This course is NOT for University course credit.

Registration

Title: ..... First Name: .....

Last Name: .....

Affiliation(Comp/ Dept): .....

.....

Position: .....

Address: .....

.....

.....Postcode: .....

E-mail: .....

Phone (Daytime): .....

Fax: .....

Preferred name for name badge:.....

Special Dietary Needs? .....

I do not want my name and company address details to be printed in the manual ☐

Payment:

1. Murdoch Uni applicants only: AUD$945 to be debited from account code: __ __ __ __ __ __ __ __ __ OTR

2. External applicants: Please make cheques payable to "Introductory Course in Molecular Biology", cross "Not Negotiable" and return to Andrea Tongue, SABC, Murdoch University, 6150.
   Alternatively payment can be made by credit card:
   ☐ Visa ☐ Bankcard ☐ Mastercard

Expiry date: ____/____

Amount to be paid (inc. GST): AUD$ 1155

Card Holder's Name: _____

Signature: _____

Murdoch University, South St., Murdoch, 6150.
Murdoch University ABN: 61 616 369 313
This form is a tax invoice for external applicants.