

FOTODYNE Workshop:

General Description:

PCR: Genetically Modified Foods

In this workshop you will use polymerase chain reaction (PCR) to test familiar, corn-based foods for genetic modification.

Each team will purify DNA and perform PCR on it. Following separation by gel electrophoresis the PCR products will be analyzed to determine which foods may be genetically modified.

Hands-on Techniques:
(Teams of 2-3)

Participants will work in groups of 2-3 for most activities. Methodologies included in the workshop include the following:

- Polymerase Chain Reaction (PCR)
- DNA Isolation from Food
- Agarose Gel Electrophoresis
- Polyacrylamide Gel Electrophoresis
- Staining DNA Gels
- Photodocumentation of Results



Materials Provided:

Participants will be given a package which contains a basic Introduction to GM Foods, Reference List, and Laboratory Protocols. Each participant will also take home a Polaroid photograph of their gel(s).

GUIDELINES FOTODYNE WORKSHOP

1. For 1-day or 2-day workshops.
2. The workshop is conducted by professional personnel from FOTODYNE Incorporated. A local person is required to coordinate the use of your laboratory facilities. The addendum lists the equipment, materials, and supplies that will be brought to the workshop and the equipment required at your facility.
3. To cover our costs the following flat rates are normally applied to workshops given in the midwestern states of WI, IL, IA, IN, MI, MN and OH (add \$500 to each fee for workshops given outside of these midwestern states). Special arrangements can be made for workshops outside of the continental United States.

2-Day Workshop - \$1900

4. The number of participants is determined by the availability of laboratory space at your institution. A minimum of 15 participants is required for all Workshops. A maximum of 24 students can be accommodated in a laboratory which has three benches. If the registration is large enough, two consecutive Workshops can be delivered for a total of 48 registrants. The financial arrangements for consecutive workshops will be negotiated.
5. The Workshop sponsor is responsible for promoting the Workshop, and for recruiting participants. It is our experience that to ensure an enrollment of 24 persons, at least 600 brochures should be mailed. For an additional fee, FOTODYNE will supply promotional material for the Molecular Biology Workshop. We can print and distribute the announcement using mailing labels that you provide. We can also provide additional names from our mailing list.
6. FOTODYNE will also deliver workshops on a registrant fee basis. In this case, each person attending the workshop pays a fee of \$150, rather than the sponsor paying the lump sum listed in item 3 of these guidelines. For a registrant fee workshop we would require an active person (host) to coordinate the workshop site, and to assist us in developing a mailing list for the area which FOTODYNE would supplement. We would require 15 participants to present such a workshop.
7. At the workshop each registrant is given a folder containing:
 - a. Laboratory Procedures
 - b. Detailed Instructor's Manuals
 - c. Copies of all Overheads
 - d. Participant Questionnaire
 - e. FOTODYNE Educational Products Division catalog
8. At the conclusion of the workshop each participant is given the following:
 - a. A certificate certifying their participation in our Molecular Biology Workshop.
 - b. An Educational Consortium Price List, which entitles them to 10-20% discounts on FOTODYNE educational products.
9. To encourage enrollment, FOTODYNE has established the following incentive program for the Workshop sponsor:

15 - 20 educators	Sponsor receives a \$250 certificate for Equipment and Supplies ordered from the Educational Products Division catalog.
21 - 24 educators	Sponsor receives a \$500 certificate for FOTODYNE Equipment and Supplies ordered from the Educational Products Division catalog.



Equipment

Genetically Modified Foods PCR Workshop: Addendum I

MATERIALS TO BE BROUGHT TO THE WORKSHOP

Electrophoresis

- 2 FOTO/Force® 250 Power Supplies
- 3 FOTO/Force® 150 Power Supplies
- 8 FOTO/Phoresis® Single Cell Assemblies (each with 1 tray & 1 comb)
- 2 Dual Electrophoresis Cell Assembly (with 2 trays & 2 combs)
- 4 Mini Vertical Cell Electrophoresis Chambers
- 24 FOTO/Phoresis® Gel Trays
- 12 12, 10, 8 and 6-well gel combs
- 24 large screw-capped tubes containing high resolution agarose + 30 ml TBE (in a rack)
- 1 Gel Pan, 8x10
- 1 Pack of precast PAGE gels

Visualization/Photodocumentation

- 1 FOTO/Phoresis® UV Transilluminator
- 1 Educational White Light Transilluminator
- 1 FCR-10 Camera
- 1 FOTO/Phoresis® Hood
- 1 Coomassie/Methylene Blue Glass Filter (yellow)
- 1 Ethidium Bromide Glass Filter (red)
- 1 Digital documentation system

Molecular Biology

- 12 1-20µl Labpette™ Adjustable Micropipetters
- 12 20-200 µl Labpette™ Adjustable Micropipetters
- 1 100-1000 µl Labpette™ Adjustable Micropipetters
- 3 Educational Microcentrifuges
- 12 Microfuge Tube Racks filled with tubes

General

- | | | | |
|----|-----------------------------|----|--|
| 1 | ThermoCycler | 12 | Scissors |
| 2 | Block Heaters (with Blocks) | 12 | Tape |
| 2 | Vortex Mixers | 12 | Pencils |
| 1 | Hot Plate | 1 | Timer |
| 1 | Hot Plate/Stirrers | 1 | Matches |
| 1 | Insulated Ice Bucket | 3 | Power Strips |
| 12 | Mini Ice Buckets | 1 | Extra Power Cord |
| 12 | Waste containers | 1 | Extension Cord |
| 1 | pair Hot Gloves | 13 | Team Signs (including Instructors Station) & Name Tags |
| 2 | 1-liter Glass Beakers | | |
| 4 | Thermometers | 25 | Safety Glasses |
| 2 | Funnels | 1 | Ice Crusher |
| 12 | Sharpie Marking Pens | 1 | Pack of paper towels |
| 12 | 6" Rulers | | |



For more information: [1-800-362-4657](tel:1-800-362-4657) or 262/369-7000 direct dial • FAX: 262/369-7017 • info@fotodyne.com

FOTODYNE Incorporated • 950 Walnut Ridge Drive • Hartland, WI 53029 • USA