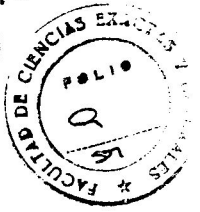


B 1998
2



CURSO: Hibridación in situ en vegetales y su aplicación en mejoramiento, sistemática y evolución.

TIPO DE CURSO: Postgrado con evaluación

TOTAL DE HORAS: 90

HORAS DE TEÓRICAS: 15

HORAS DE SEMINARIOS: 15

HORAS DE LABORATORIO: 60

PUNTOS SOLICITADOS PARA EL DOCTORADO: 4

PROGRAMA SINTETICO

A. Fundamentos Teóricos

- 1.-Fundamentos de la hibridación in situ utilizando colorantes fluorescentes (FISH)
- 2.-Detección citológica de secuencias específicas.
- 3.-Detección de partes de genomas o genomas enteros utilizando ADN genómico total como sonda (GISH).
- 4.-Aplicaciones del GISH en el análisis de la organización nuclear y comportamiento cromosómico.
- 5.-Discriminación cromosómica entre especies relacionadas mediante la utilización de ADN genómico total no marcado como bloqueante y de ADN genómico total marcado como sonda.
- 6.-Usos del GISH en la identificación cromosómica de especies parentales en híbridos intra e interespecíficos (maíz, avena, trigo)
- 7.-Resolución del origen de alo y autopoliploides y elaboración de hipótesis de evolución genómica en distintos grupos mediante la utilización de GISH
- 8.-Análisis de progenies en programas de mejoramiento vegetal
- 9.-Hibridación en meiosis: origen genómico de cromosomas apareados y no apareados en híbridos y poliploides.
- 10.-Hibridación in situ y el origen de cromosomas B.

B. Trabajos Prácticos

- 1.-Extracción de ADN total a partir de material fresco y seco. Su cuantificación
- 2.-Extracción de ADN plasmídico. Cultivo bacteriano. Miniprep. Cuantificación en gel
- 3.-Marcado de las sondas por "Nick translation", "Random primed" y PCR.
- 4.-Rendimiento de incorporación de la marca mediante su evaluación por "Dot blots"
- 5.-Preparación del material citológico. Pretratamientos previos a la hibridación.
- 6.-Mezcla de hibridación. Sus componentes. Astringencia del proceso. Desnaturalización prehibridación e hibridación. Uso del termociclador. Lavados posthibridación.
- 7.-Detección inmunofluorescente. Contratación cromosómica
- 8.-Observación de los resultados mediante microscopio de epifluorescencia. Uso de los distintos filtros ópticos. Fotomicrofotografía.


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