

SUMMER INSTITUTE CALENDAR 2022

SUN	MON	TUE	WED	THU	FRI	SAT
						July 02
						Early Arrival Airport Arrivals and Check-in
July 03	04	05	06	07	08	09
Early Arrival Airport Arrivals and Check-in	Airport Arrivals and Check-in 6:00pm: 4th of July Celebrations	9:30am-12pm: Campus tour, Panther ID & ISSS Check-in 12-2pm Lunch 2:00-6:00pm, Shuttle to local grocery store	9:30am-11:30am ISSS, OII, & Housing Orientation & Presentation 2:30-4:30pm: Welcome Reception and Buddy Meet & Greet Event	Classes begin! 9-11:20am: Morning course 11:20am-2:00pm: Lunch break 1:30-4:30pm: BIOL4905 INTRO - TRAINING	9-11:20am: Morning course 11:20am-2:00pm: Lunch break 1:30-4:30pm: BIOL4905 DNA PREPARATION	Free Day
10	11	12	13	14	15	16
12:00-4:00pm: The World Coca-Cola and Georgia Aquarium	9-11:20am: Morning course 11:20am-2:00pm: Lunch break 1:30-4:30pm: BIOL4905 PROTEOMICS I	9-11:20am: Morning course 11:20am-2:00pm: Lunch break 1:30-4:30pm: BIOL4905 PROTEOMICS II	9-11:20am: Morning course 11:20am-2:00pm: Lunch break 1:30-4:30pm: BIOL4905 PROTEOMICS III 6:00-10:00pm: Atlantic Station Shopping & Movie (Sign-up)	9-11:20am: Morning course 11:20am-2:00pm: Lunch break 1:30-4:30pm: BIOL4905 PROTEOMICS IV ?	9-11:20am: Morning course 11:20am-2:00pm: Lunch break 1:30-4:30pm: BIOL4905 RNA PREPARATION	6:00-9:00pm: Dinner in America (Sign-up)
17	18	19	20	21	22	23
Free Day	9-11:20am: Morning course 11:20am-2:00pm: Lunch break 1:30-4:30pm: BIOL4905 qPCR & AUTOMATION	9-11:20am: Morning course 11:20am-2:00pm: Lunch break 1:30-4:30pm: BIOL4905 DNA SEQUENCING	MINI BREAK	9-11:20am: Morning course CDC TRIP 1:30-4:30pm: BIOL4905 MICROSCOPY / AFM	9-11:20am: Morning course 11:20am-2:00pm: Lunch break 1:30 - 4:30pm: BIOL4905 NEXT GEN SEQ. 5:30-7:30pm: Meet & Greet BBQ event @ The Commons	9:00am - 6:00pm: Outlet Mall
24	25	26	27	28	29	30
Free Day	9-11:20am: Morning course 11:20am-2:00pm: Lunch break 1:30-4:30pm: BIOL4905 MICROARRAY I	9-11:20am: Morning course 12:30 - 1:30pm: Lunch and LearnGrad School Info Session 2:00 - 5:00pm: BIOL4905 MICROARRAY II	9-11:20am: Morning course 11:20am-2:00pm: Lunch break 1:30-4:30pm: BIOL4905 NANOSTRING	Last day of classes 9-11:20am: Morning course 11:20am-2:00pm: Lunch break 1:30-4:30pm: BIOL4905 FLOW CYTOMETRY	FINALS	Free Day
31	August 01	02	03	04		
Free Day	Activity Day at the Recreation Center (Sign-up)	Free Day	9:30-11:00am: Georgia Capitol Tour (Sign-up) 2:00-4:00pm: Closing Reception	Departures (check-out at 12:00pm)		

Note: Students may arrive prior to the program date with an extra charge of \$35 per night. Earliest day to check-in to University Commons is July 2.

Legend:

Orange: Courses Blue: Lunch Break Red: Sign-up events



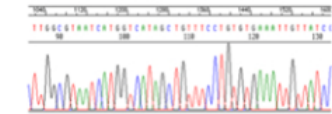
GSU Biology Core Facility

Supporting Life Sciences at GSU

http://biotech.gsu.edu/core_facility/index.html

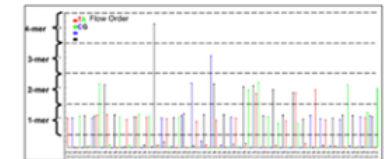


DNA Sequence Analysis: Profiling DNA



Sanger Sequencing –
>800 base pairs/run

High Throughput Genomic Sequencing –
100,000 base pairs/run



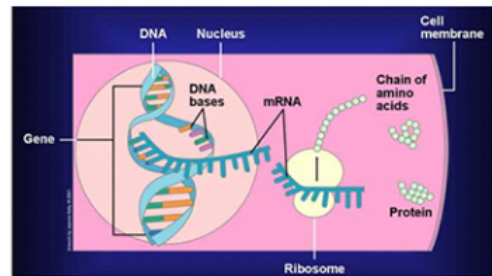
RNA Expression

Microarray: Analysis Profiling mRNA



Colour of pin-point dots demonstrates the presence / absence of gene sequences

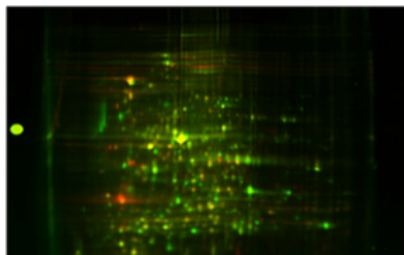
DNA Replication



Protein Expression

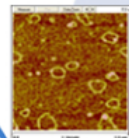
Proteomics Profiling Proteins

2D Protein gel
Protein separation using Electric charge and molecular weight

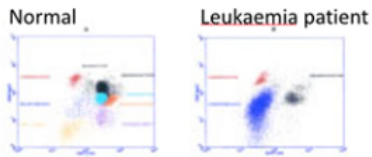


Atomic Force Microscopy Imaging at the Ångström level

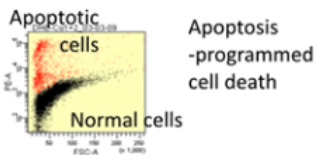
Protein structure analysis



Flow Cytometry Profiling Cells

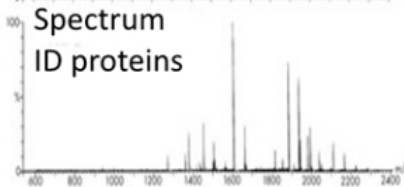


See effects of different drugs on Cell cycle



Cellular Functions

Mass Spectrometry





GSU Biology Core Facility

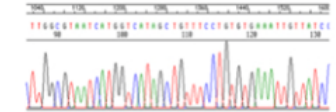
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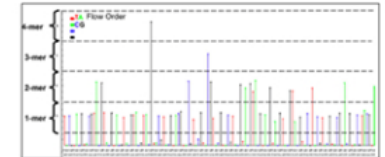


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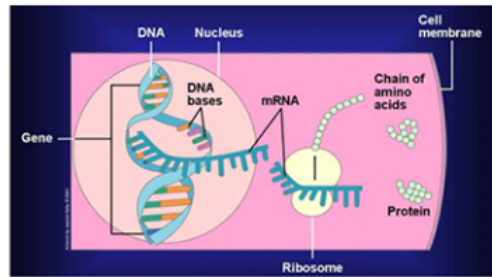
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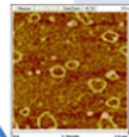


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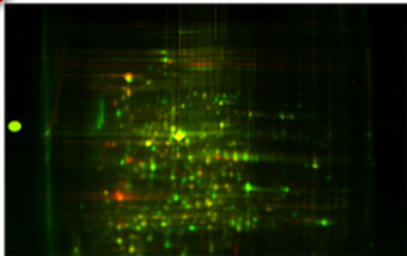


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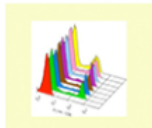
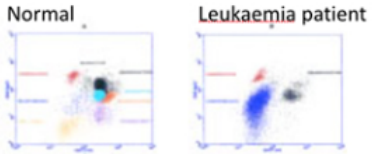
Protein Expression

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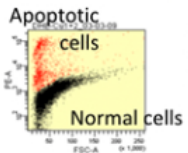
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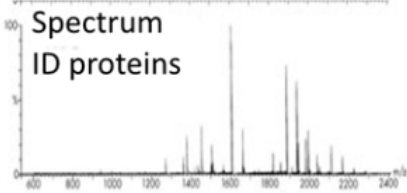
See effects of different drugs on Cell cycle



Apoptosis -programmed cell death

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Mass Spectrometry





GSU Biology Core Facility

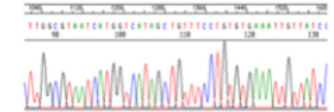
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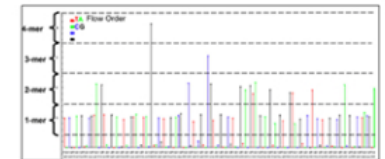


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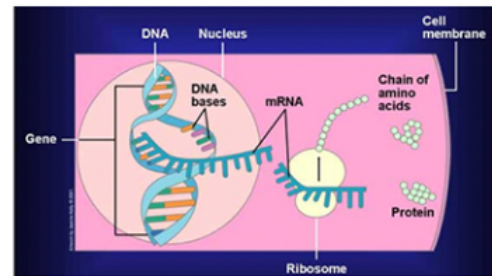


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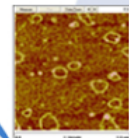


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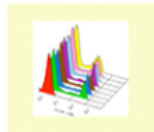
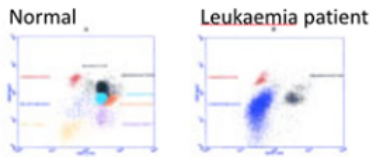


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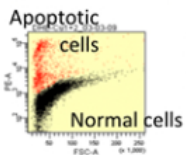
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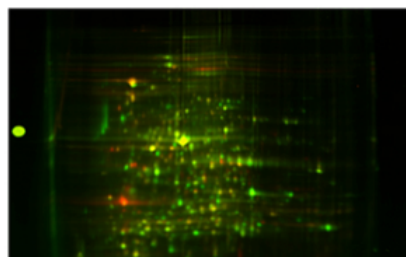
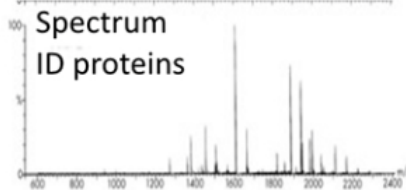
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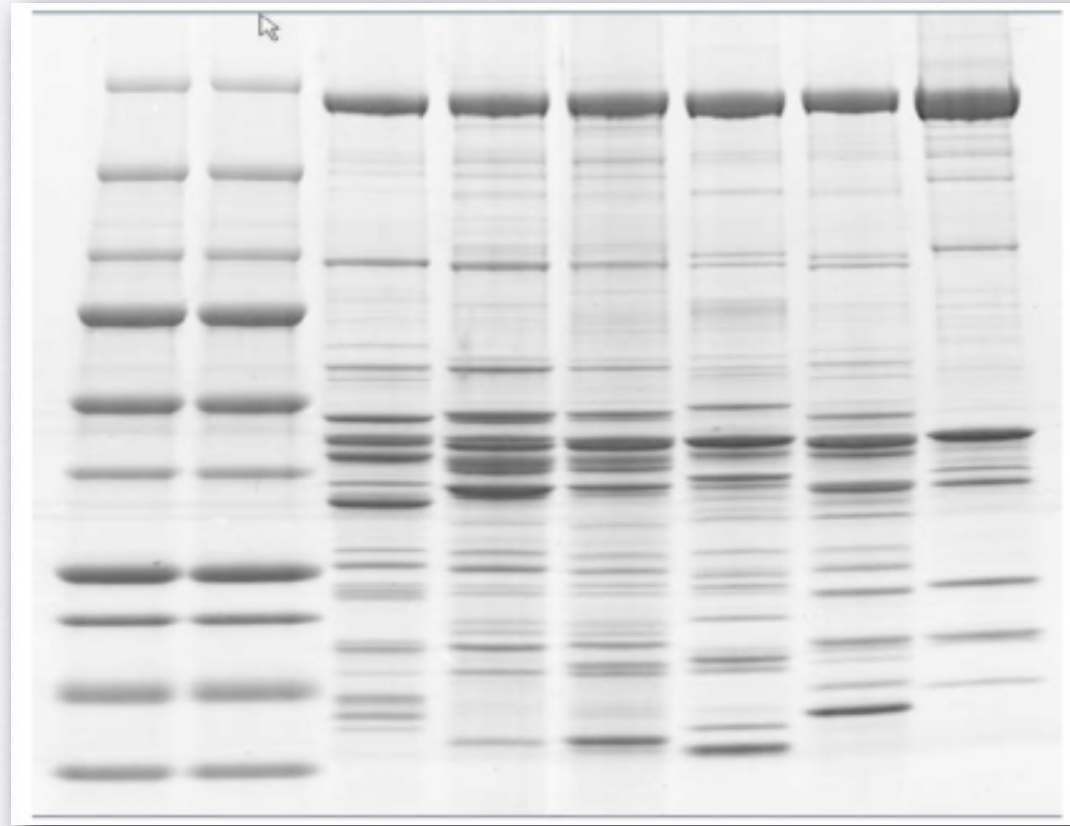


Protein Expression

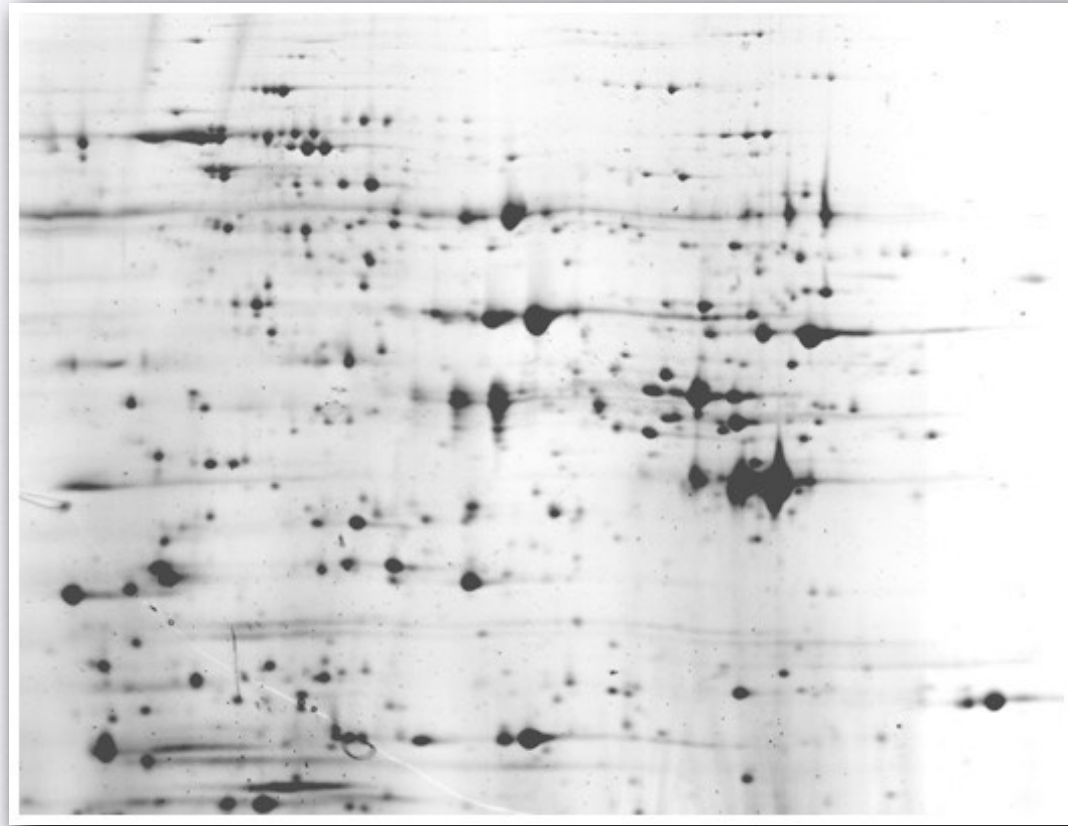
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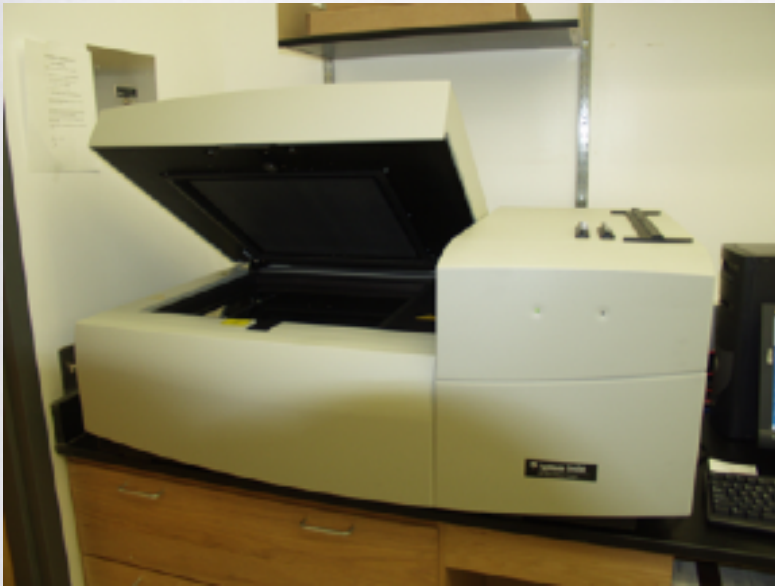
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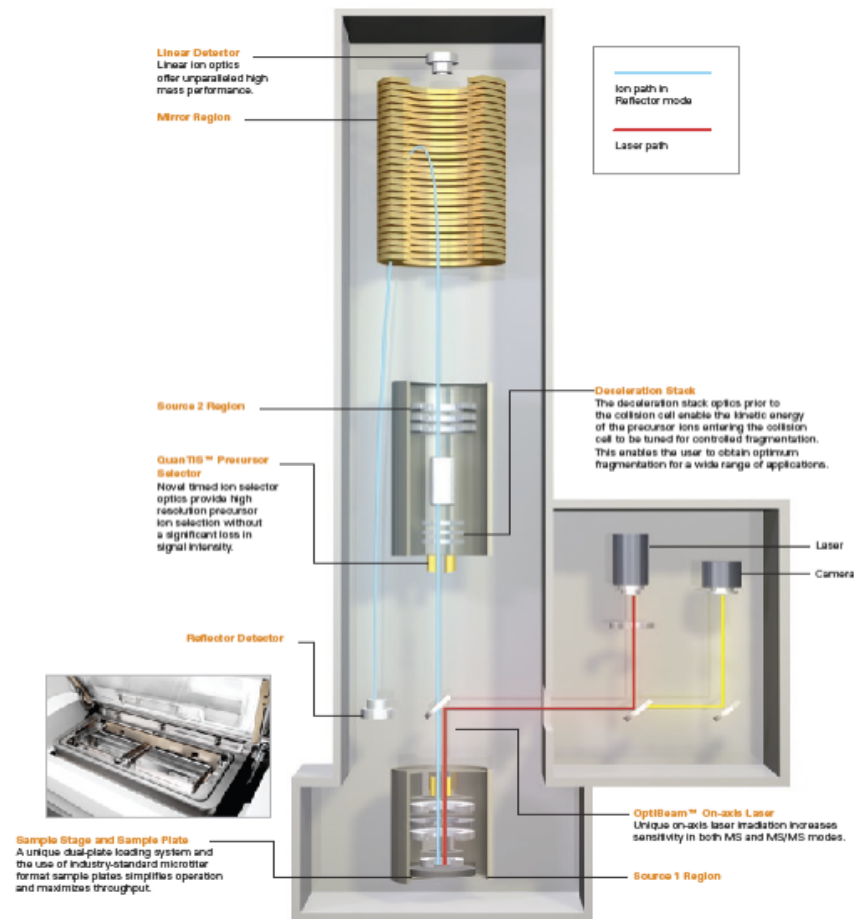
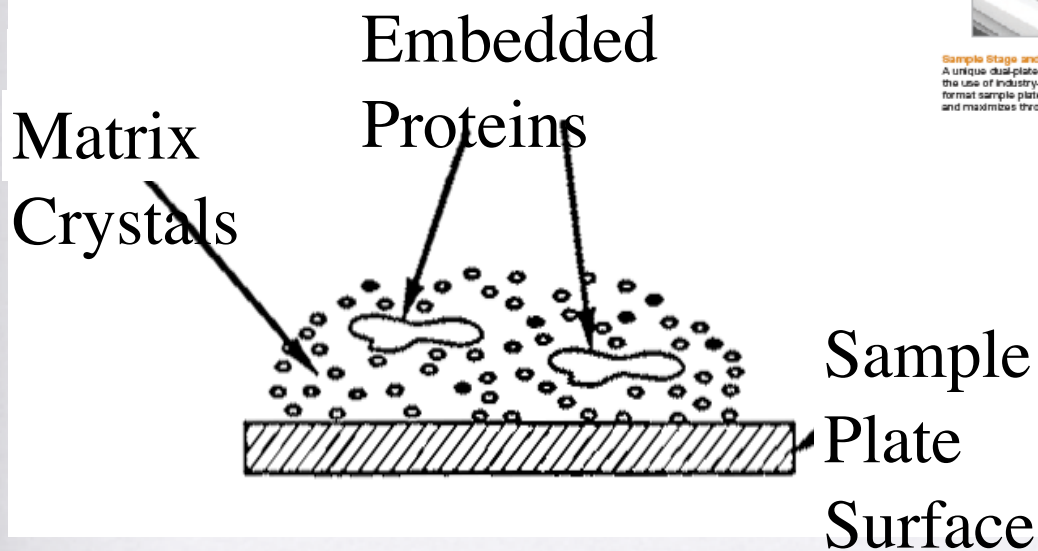


Proteomics:





Ettan II 2D gel Proteomics System complemented by a MALDI TOF/TOF(ABI) Model 4800+

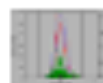


Proteomics:



Fluorescence 2-D differential in-gel electrophoresis platform

Amer sham Pharma cia Biotech UK Limited, Amer sham Place, Little Chalfont, Buckinghamshire, HP7 0NA, England



2-D differential in-gel electrophoresis (DIGE) is a powerful tool for identifying and quantifying protein spots, especially in complex samples (Figure 1).

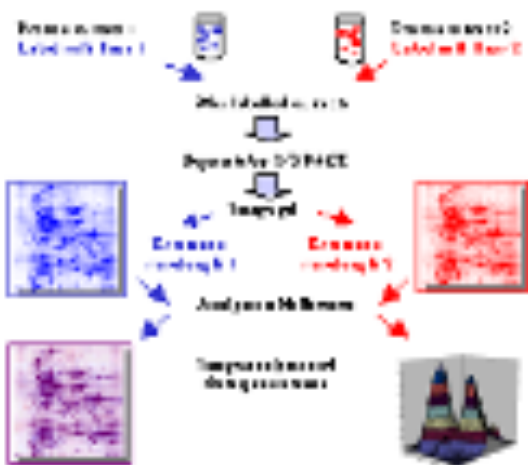


Figure 1: Overview of the 2-D DIGE technology (Amer sham Pharma cia Biotech UK Limited, Amer sham Place, Little Chalfont, Buckinghamshire, HP7 0NA, England)

The most powerful tool for identifying and quantifying protein spots is the 2-D DIGE platform. This platform has been developed as a 2-D DIGE platform for protein spots in complex samples. The DIGE platform is a powerful tool for identifying and quantifying protein spots in complex samples.

The DIGE platform is a powerful tool for identifying and quantifying protein spots in complex samples.

- Efficiently identify and quantify protein spots
- High resolution and sensitivity
- High resolution and sensitivity
- High resolution and sensitivity
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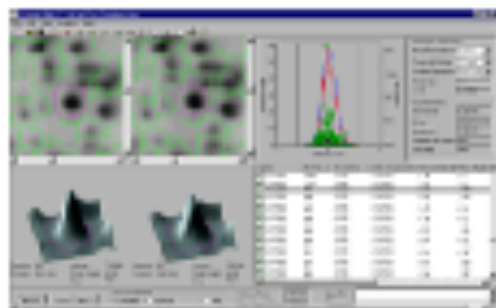


Figure 2: Overview of the DIGE technology (Amer sham Pharma cia Biotech UK Limited, Amer sham Place, Little Chalfont, Buckinghamshire, HP7 0NA, England)

The DIGE platform is a powerful tool for identifying and quantifying protein spots in complex samples. The DIGE platform is a powerful tool for identifying and quantifying protein spots in complex samples.

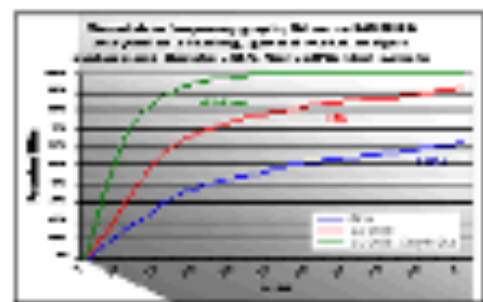


Figure 3: Overview of the DIGE technology (Amer sham Pharma cia Biotech UK Limited, Amer sham Place, Little Chalfont, Buckinghamshire, HP7 0NA, England)

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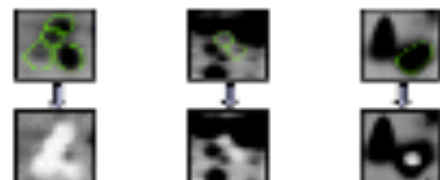


Figure 4: Overview of the DIGE technology (Amer sham Pharma cia Biotech UK Limited, Amer sham Place, Little Chalfont, Buckinghamshire, HP7 0NA, England)



Figure 5: Overview of the DIGE technology (Amer sham Pharma cia Biotech UK Limited, Amer sham Place, Little Chalfont, Buckinghamshire, HP7 0NA, England)

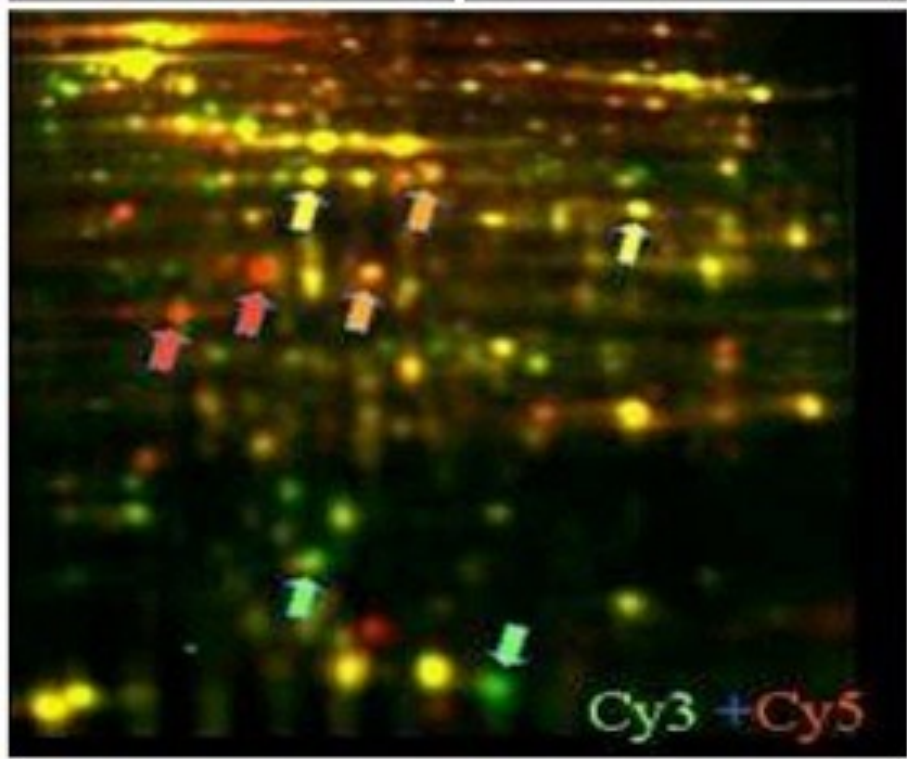
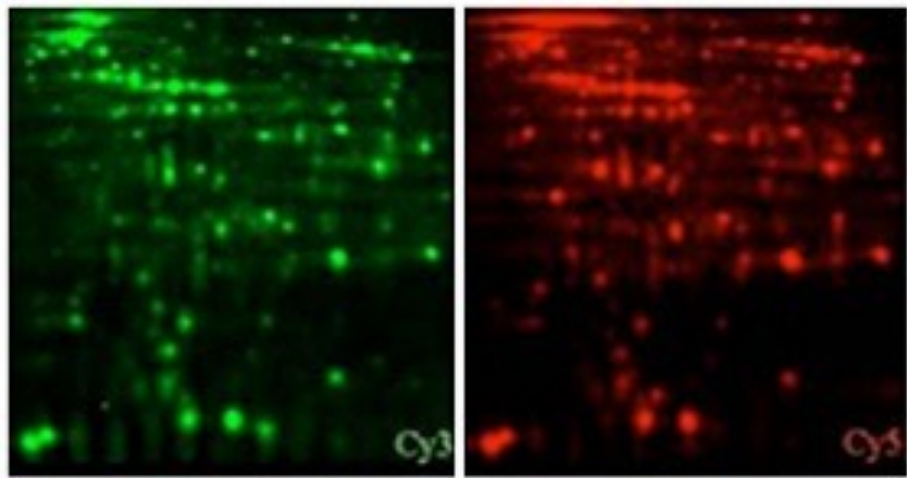
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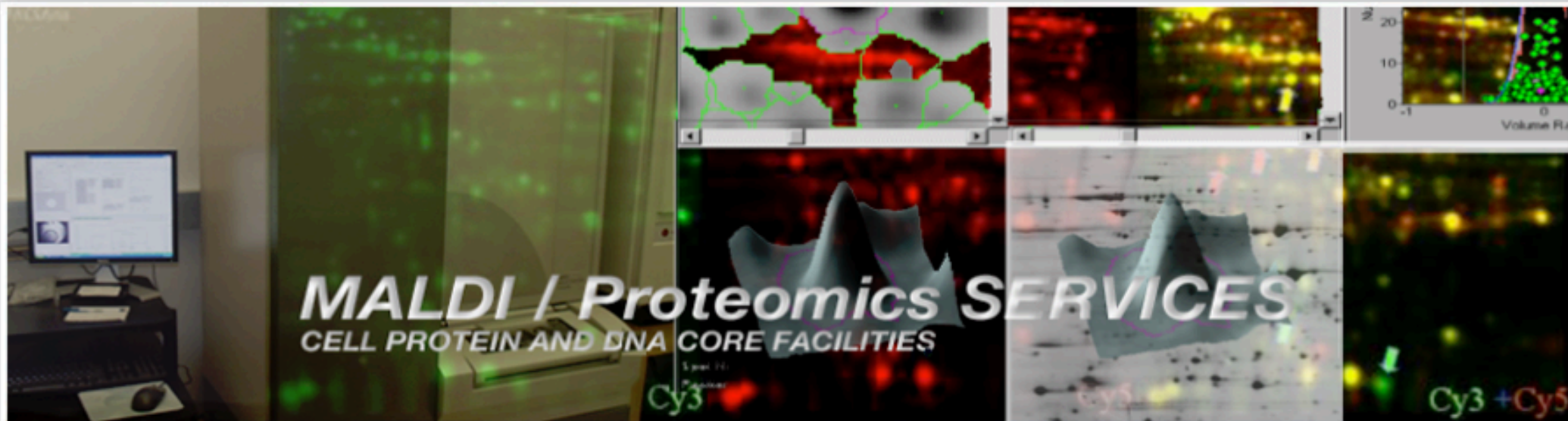
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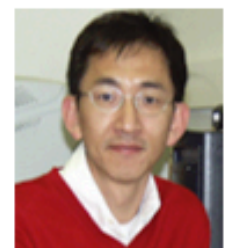
MALDI / Proteomic Services

Cell, Protein and DNA Core Facilities

Hyuk-Kyu Seoh

Lab / Office: PSC 537 / 521

Tel: 404-413-5379



About MALDI Services
