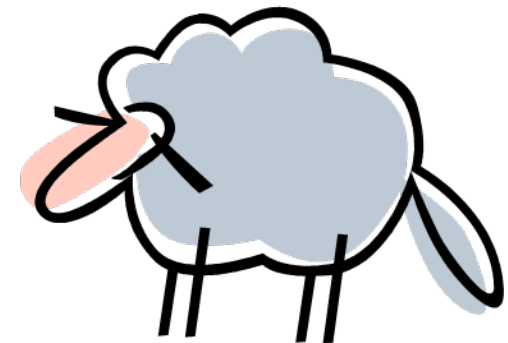


Tecnologie innovative per lo studio di composti bioattivi presenti nel siero e derivati da latte ovino

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Istituto Sperimentale Italiano Lazzaro
Spallanzani, Milano

Proteotech s.r.l., Pula (CA)



LATTE OVINO

LATTE OVINO

COMPOSIZIONE CHIMICA

Acqua	81,73
Grasso	7,09
Proteine	5,75
- Caseine	4,42
- Proteine solubili	1,06
- Azono non proteico	0,265
Lattosio	4,61
Ceneri	0,93
Solidi totali	18,25

PROPRIETA' FISICO-CHIMICHE

Densità	1,034 – 1,038
Viscosità	2,86 - 3,93
pH	6,5 - 6,8

CARATTERISTICHE CHIMICHE DELLE SIEROPROTEINE

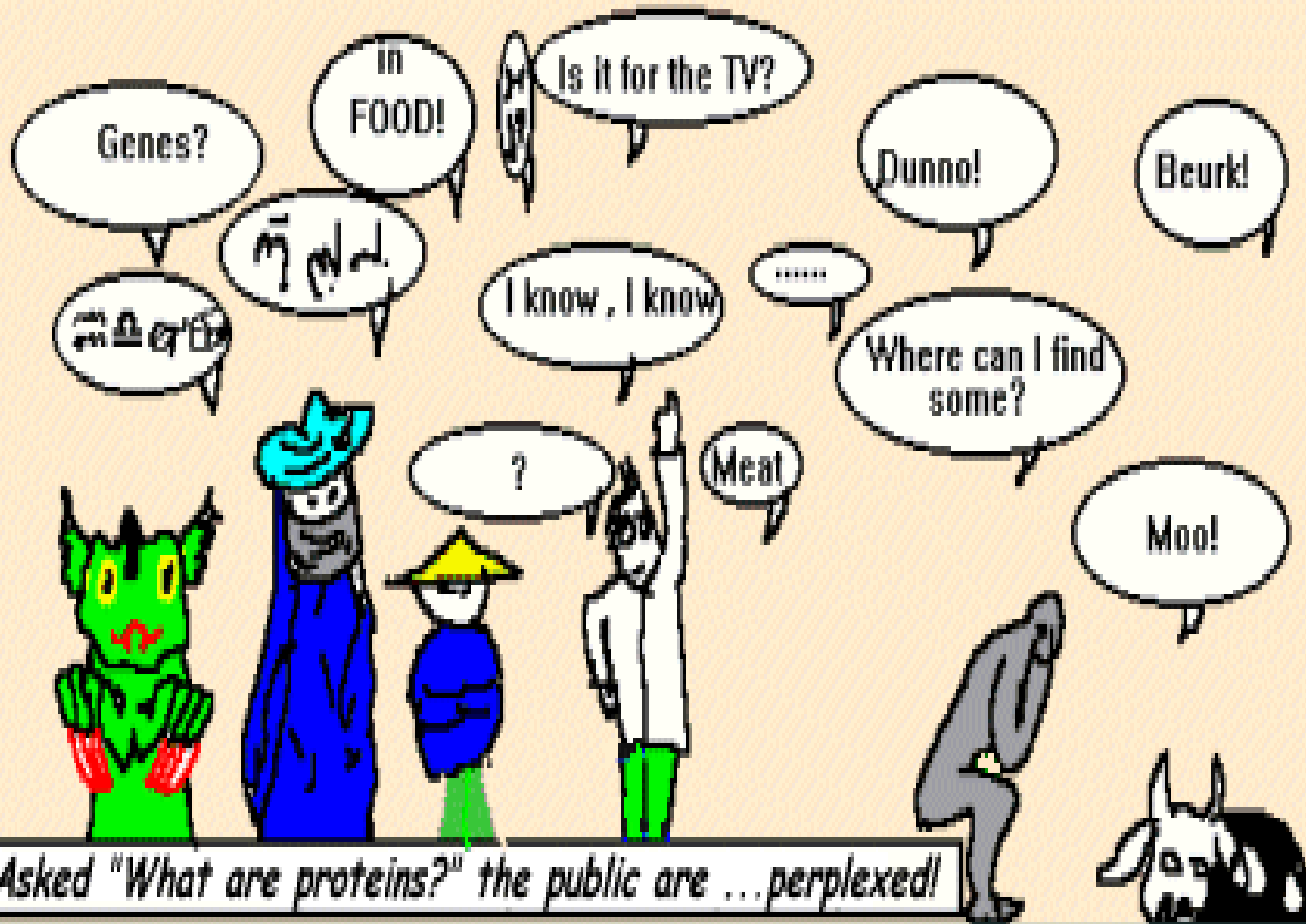
PROTEINE	BOVINO	OVINO	CAPRINO	BUFALINO	P.M. (Dalton)	P.I. (pH)
β -lattoglobulina	2,7	3,116	3,920	3,8	18400 - 36800	5,2
α -lattalbumina	1,2	1,92	1,078	1,3	14200	4,5 - 4,8
Albumina	0,45	2,94	0,153	0,42	69000	4,8
Immunoglobuline	0,65	1,254	0,792	0,72	150000 - 900000	5,5 - 8,3
Lattoferrina	0,15	0,482	0,12	0,121	78000	9,0
Lattoperossidasi	0,02	0,343	0,08	0,07	89000	9,5

COMPOSIZIONE CHIMICA DEL SIERO DERIVATO DAL LATTE

PARAMETRI	SCOTTA OVINO	SIERO OVINO	SIERO PARMIGIANO
pH	6,4	6,5	6,2
Densità (g/cm ³)	1,026	1,018	1,09
Viscosità (cp)	0,75	0,8	0,82
Ceneri (g/L)	4,4	3,4	3,3
Grassi (g/L)	0,5	0,1	0,5
Lattosio (g/L)	45 - 52,2	44	55,5
Acido-L-Lattico (g/L)	0,095	0,11	0,1
Azoto non proteico (g/L)	3,2	3,2	4,0
Proteine (g/L)	4,5-8	10,1	12,5
Proteine totali (g/L)	8,5	11,5 - 12,0	18,5

CARATTERISTICHE STAGIONALI DELLA SCOTTA

Periodo	Sostanza secca	Proteine	Grasso	Lattosio	Ceneri
Inverno	6,82 ± 0,15	1,02 ± 0,06	0,24 ± 0,08	5,18 ± 0,10	0,56 ± 0,07
Primavera	7,01 ± 0,22	1,10 ± 0,15	0,29 ± 0,08	5,19 ± 0,07	0,55 ± 0,05
Estate	6,74 ± 0,23	1,03 ± 0,05	0,43 ± 0,06	4,57 ± 0,10	0,52 ± 0,05



Asked "What are proteins?" the public are ...perplexed!

SIERO

Proteine fondamentali

LATTOFERRINA

LISOZIMA

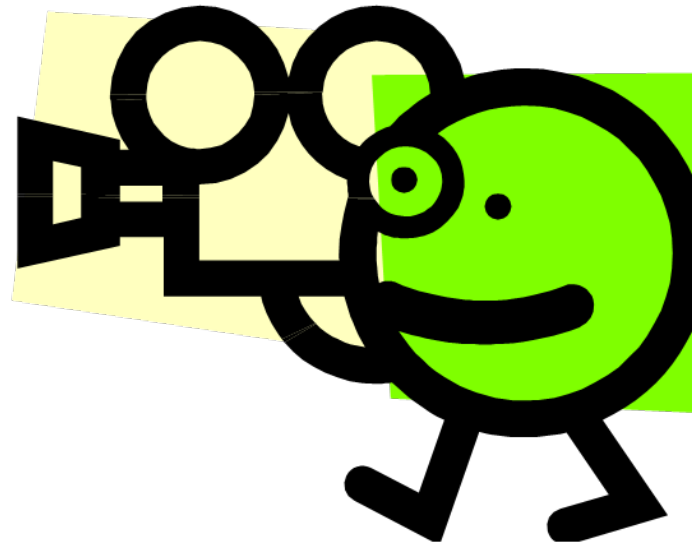
LATTOPEROSSIDASI

ALFA LATTOALBUMINA

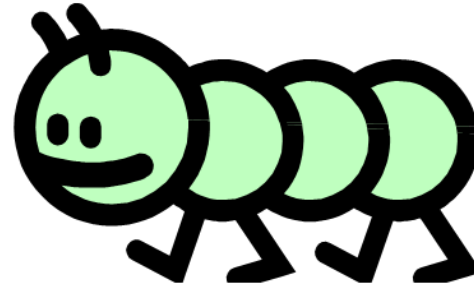
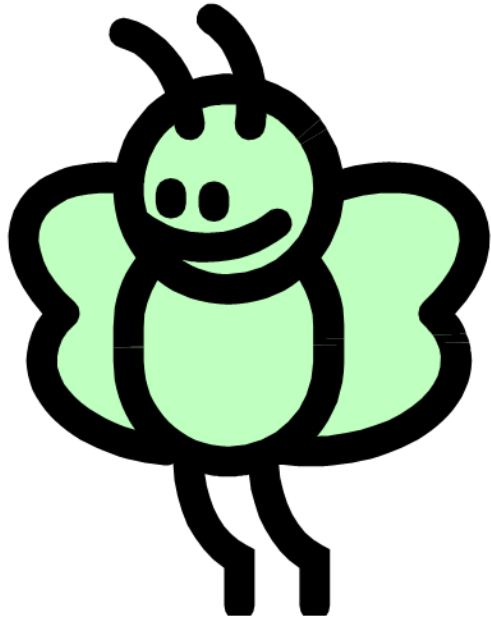
BETALATTOGLOBULINA



COME SI PUO' FARE UNA FOTOGRAFIA DELLE PROTEINE



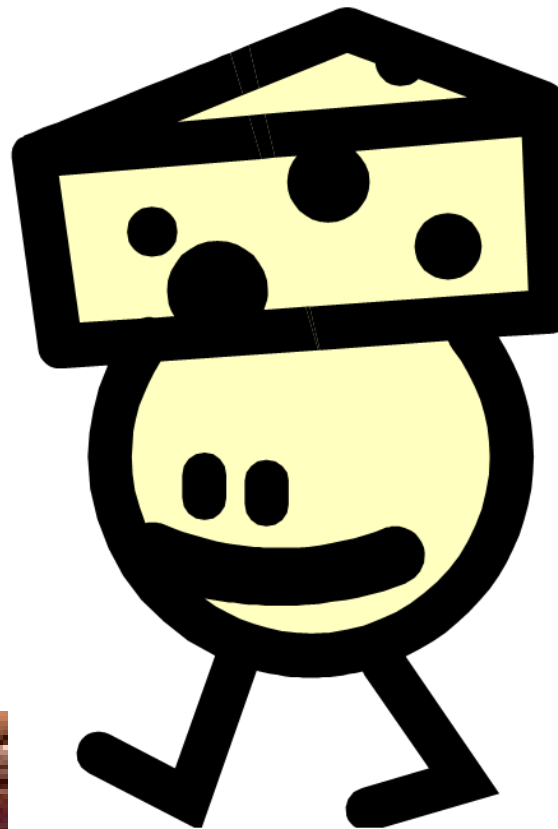
PROTEOMICA

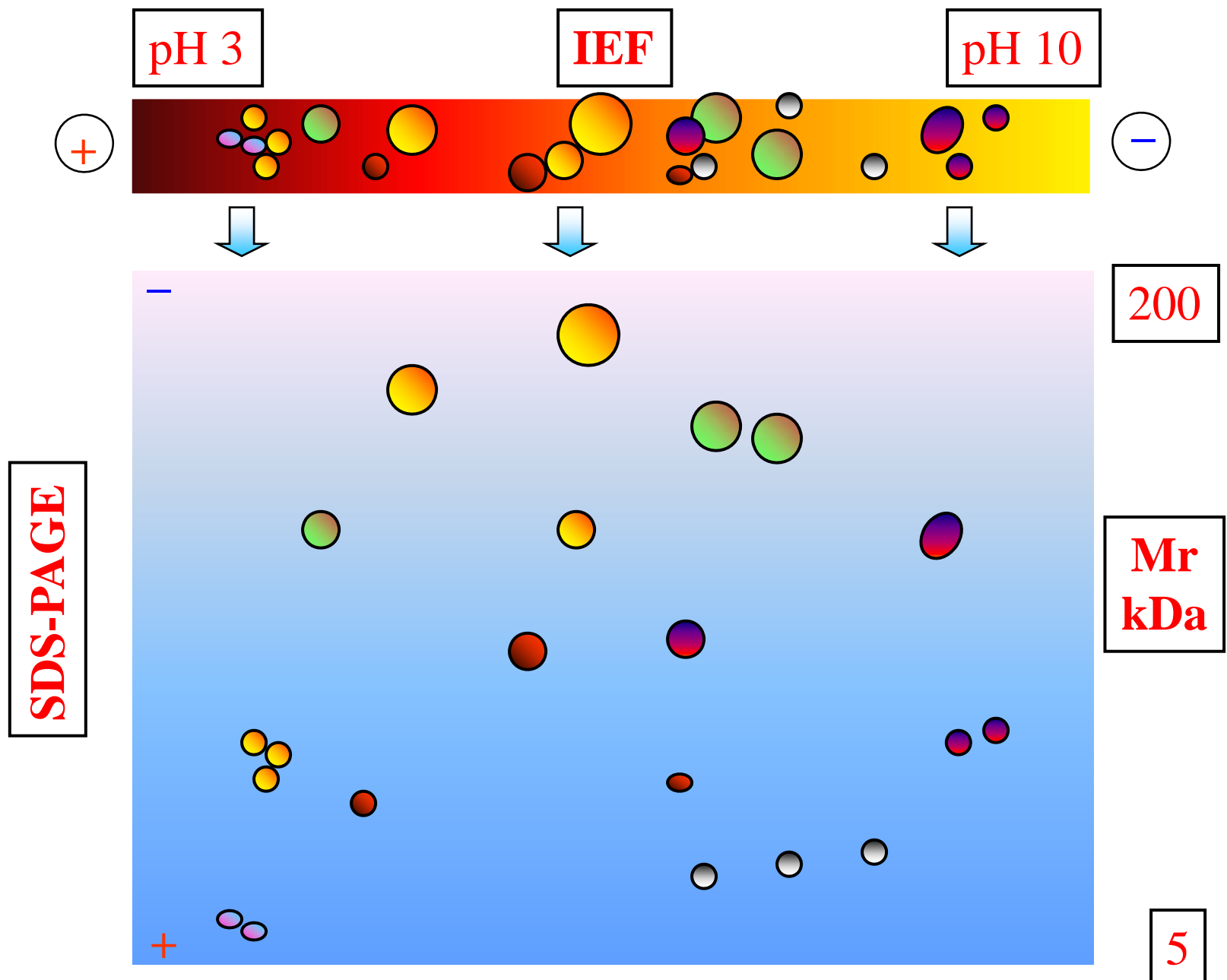


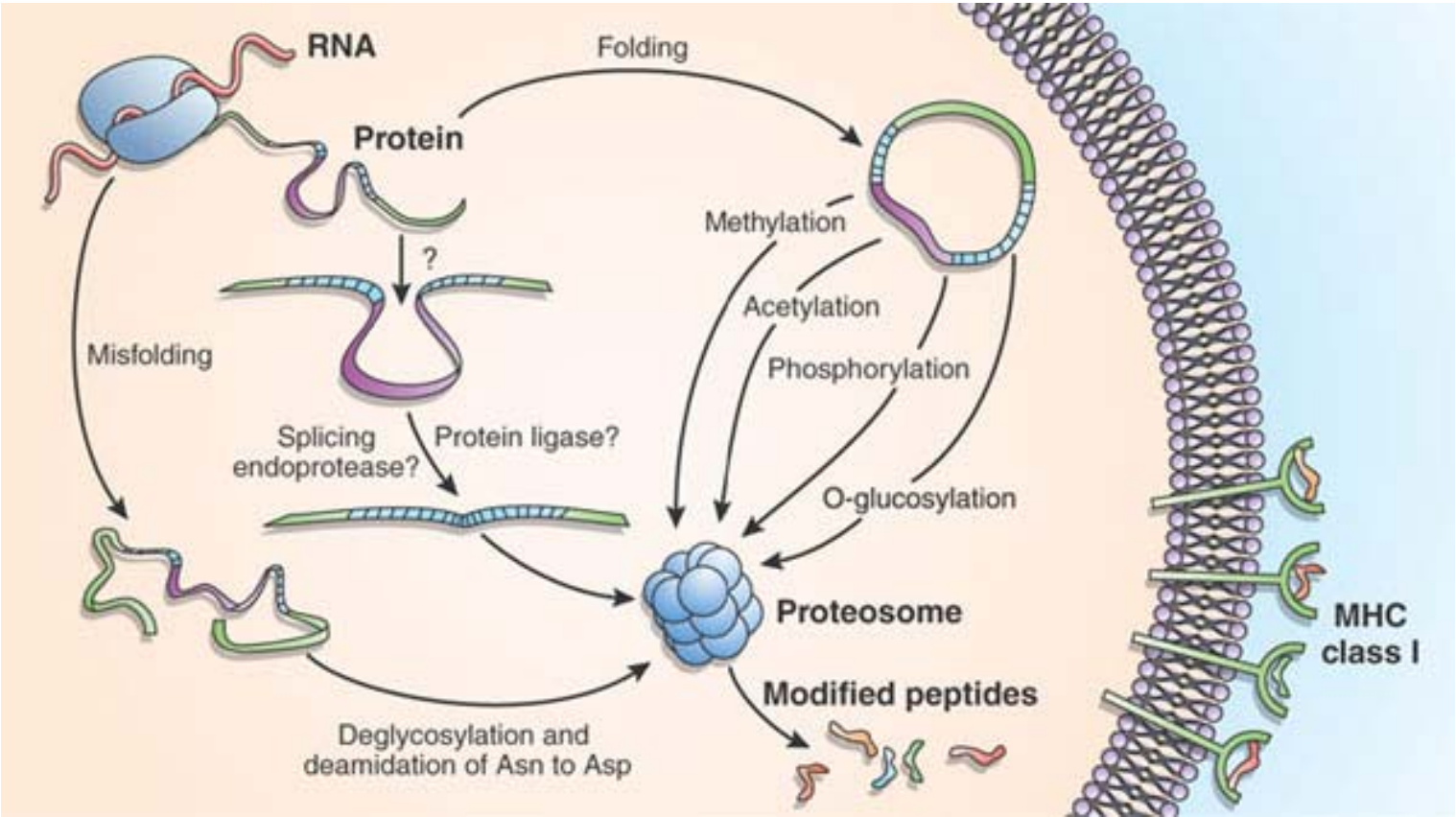
PROTEOMA
=
PROTEINE ESPRESSE DA UN GENOMA

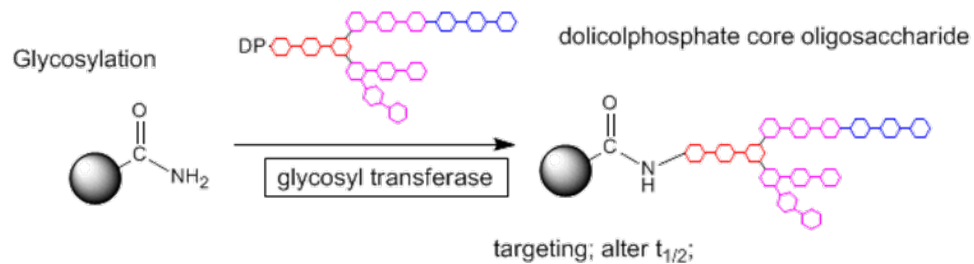
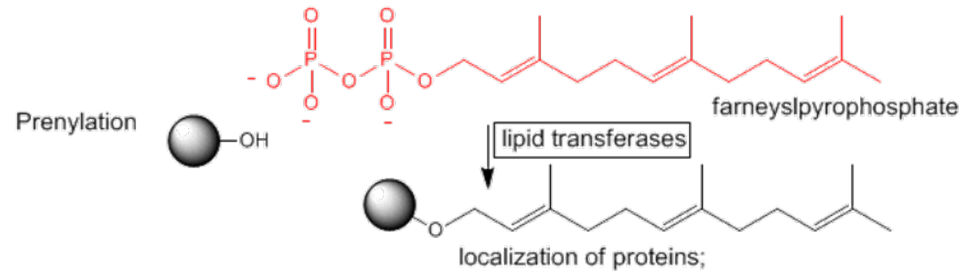
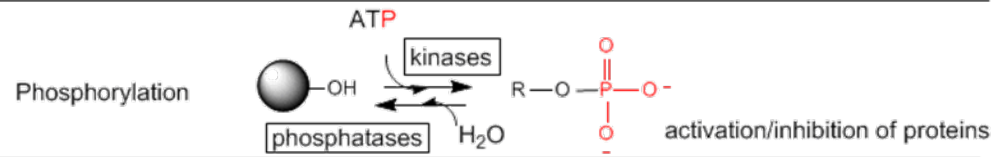
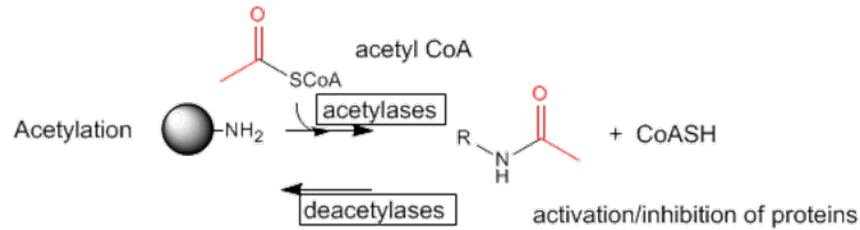
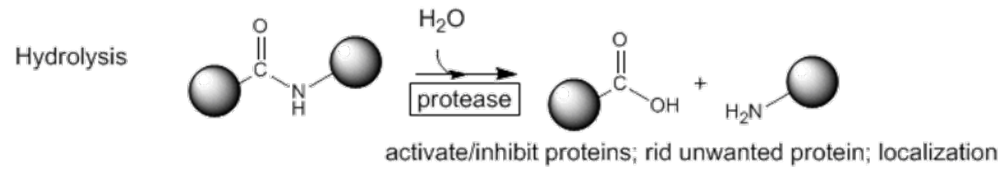
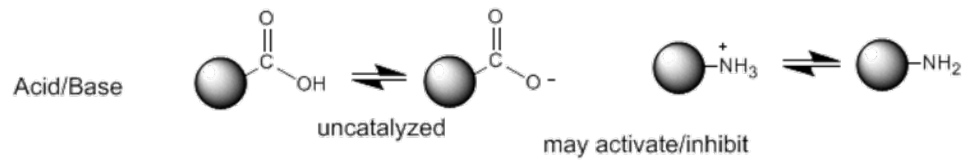
Wilkins, Siena 2D world congress 1994

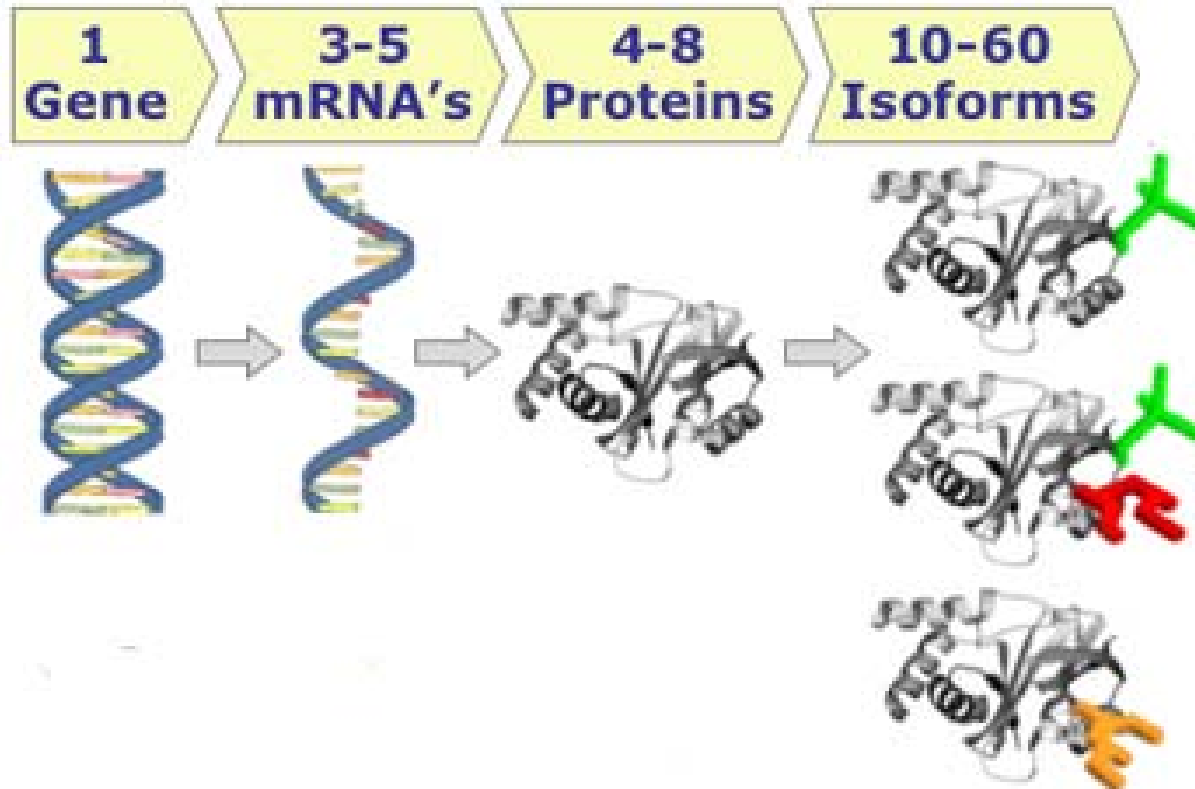
Tutte le proteine espresse da una cellula o da un tessuto in un determinato momento



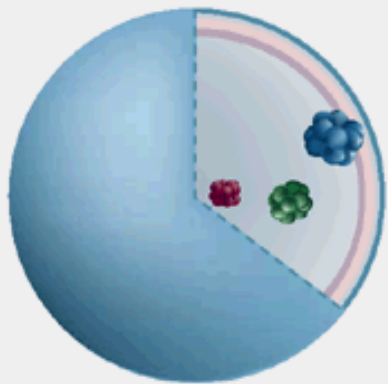




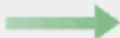




ISOFORMS: KEY TO PROTEIN FUNCTION AND QUALITY INDEX!!!



extract

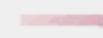


enrich

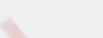
quantify
(2DE)



digest

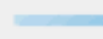


mass
spectrometry

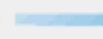


identify

digest



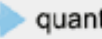
separate

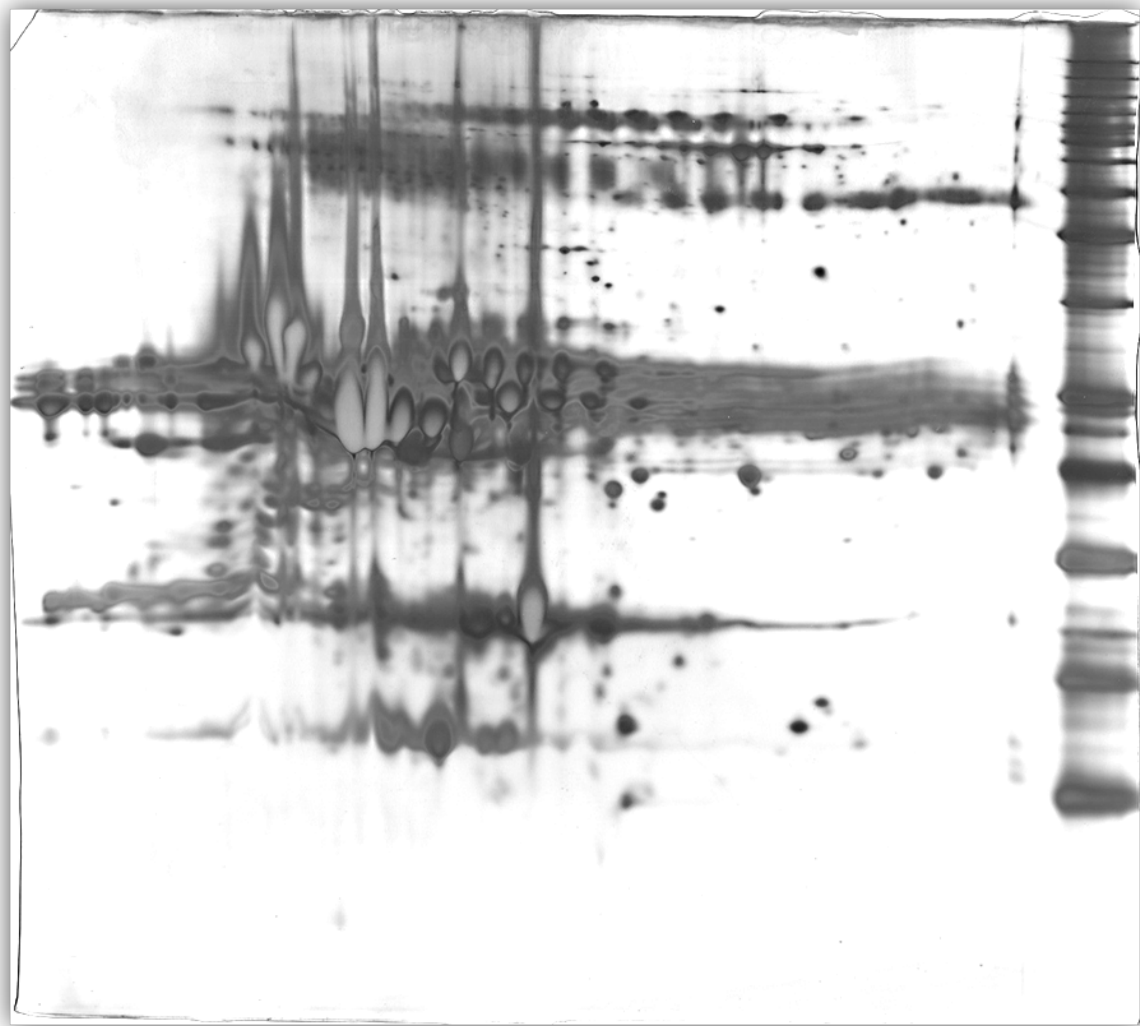


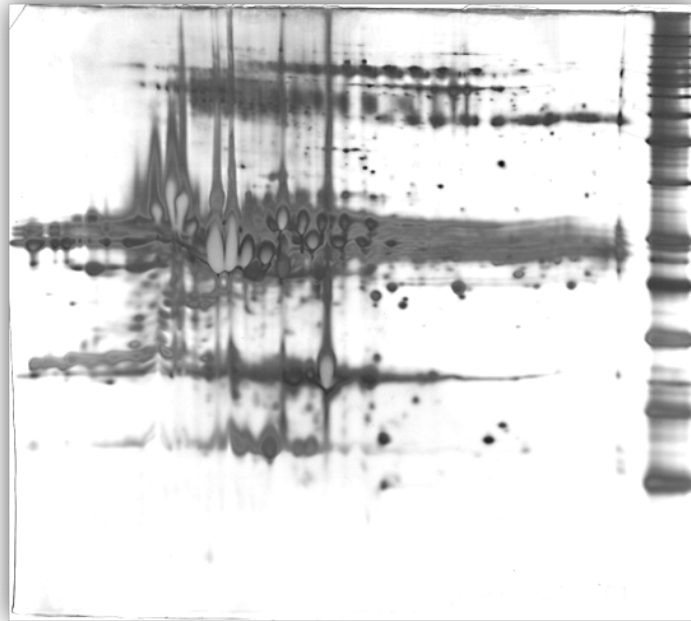
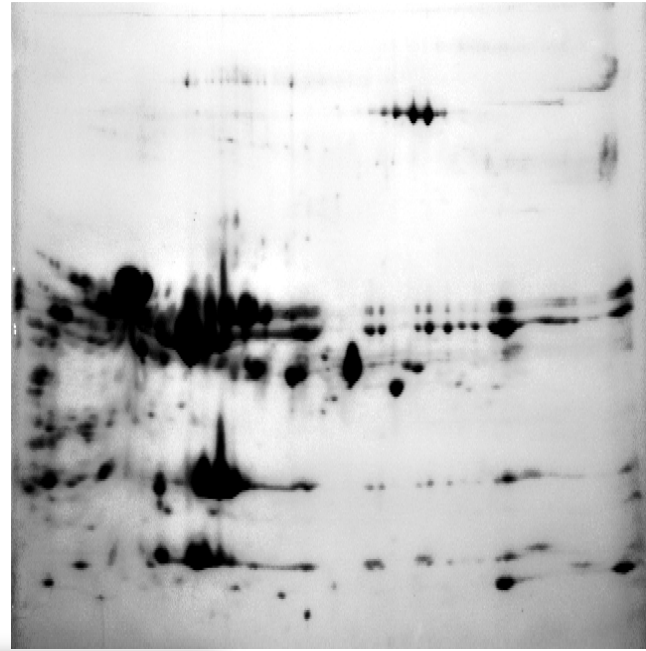
mass
spectrometry

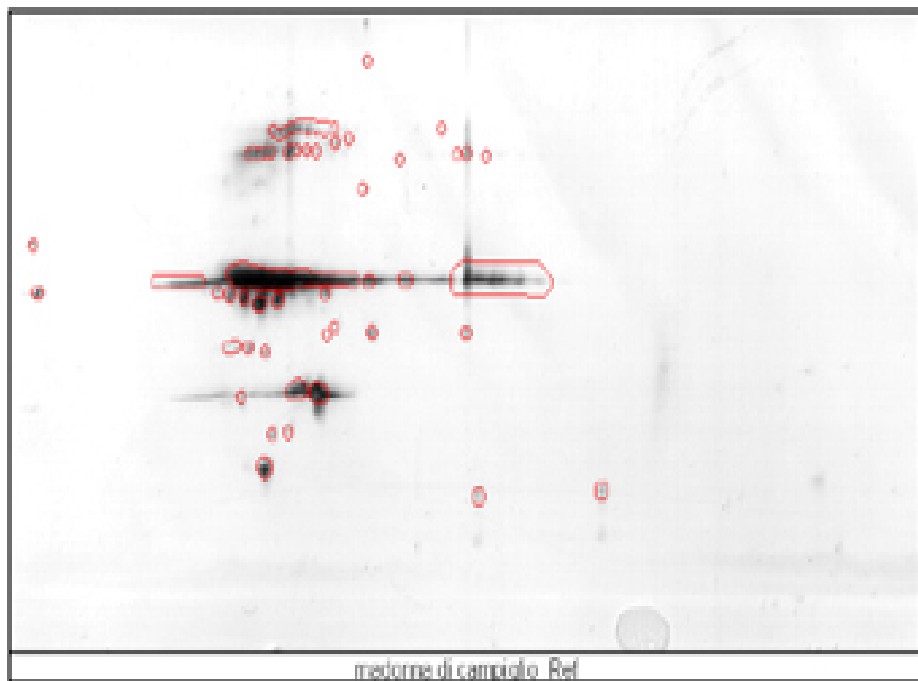


quantify

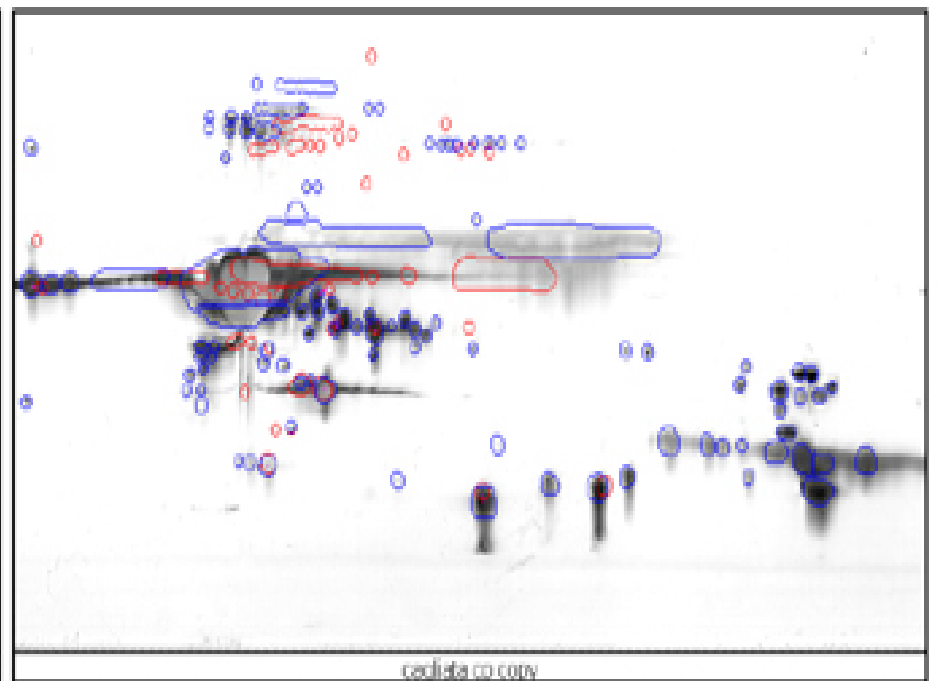




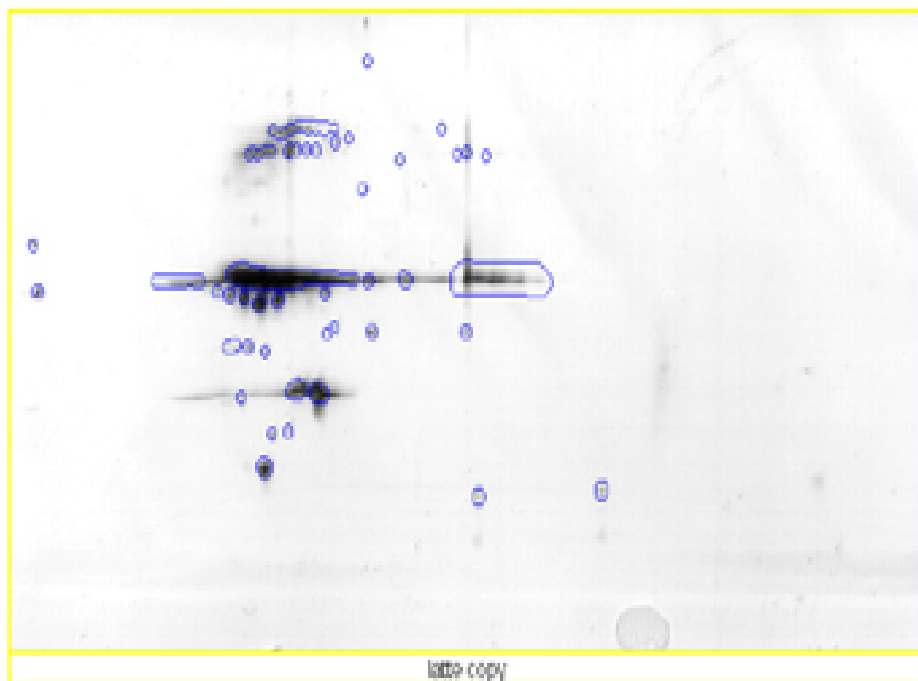




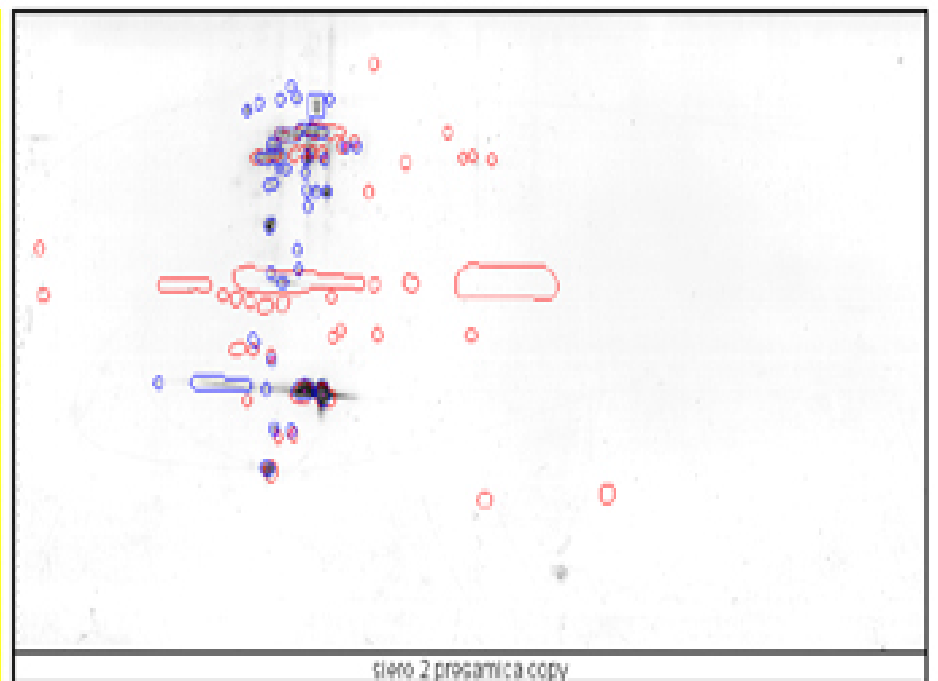
mesoforno di campeggio. Ref



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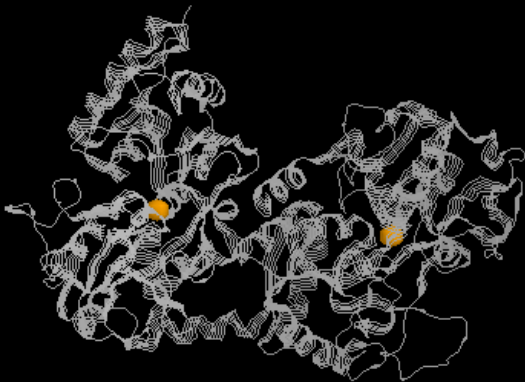


latte copy

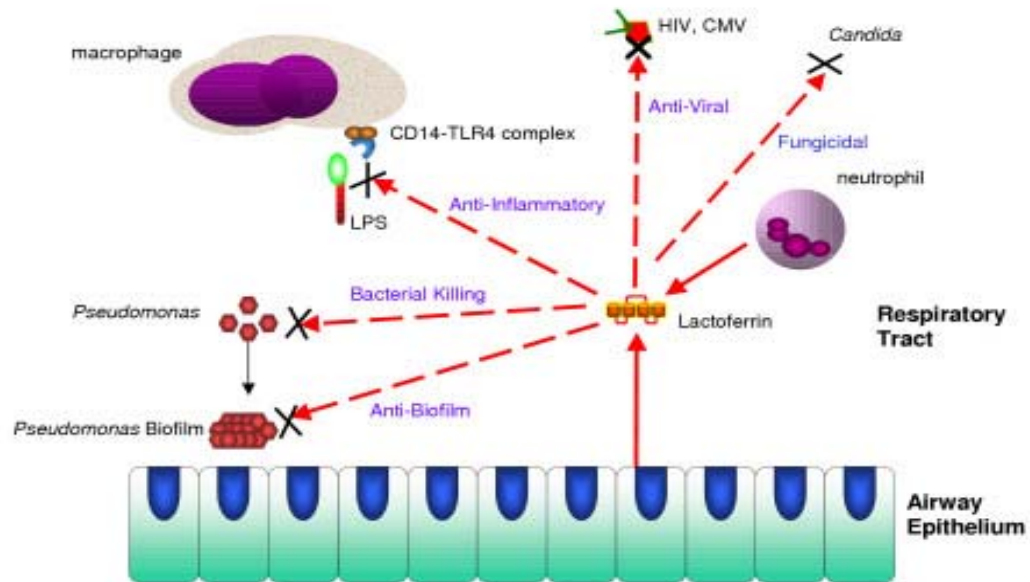
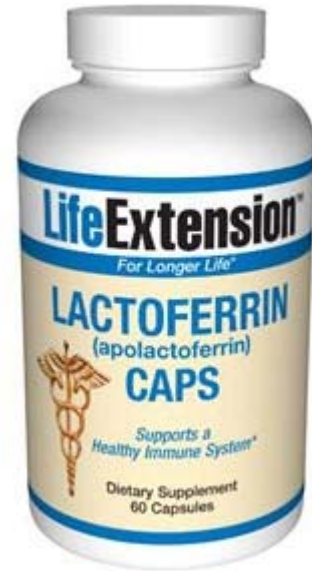


siero 2 presamica copy

ESEMPIO VALORIZZAZIONE LAVORAZIONE LATTE OVINO



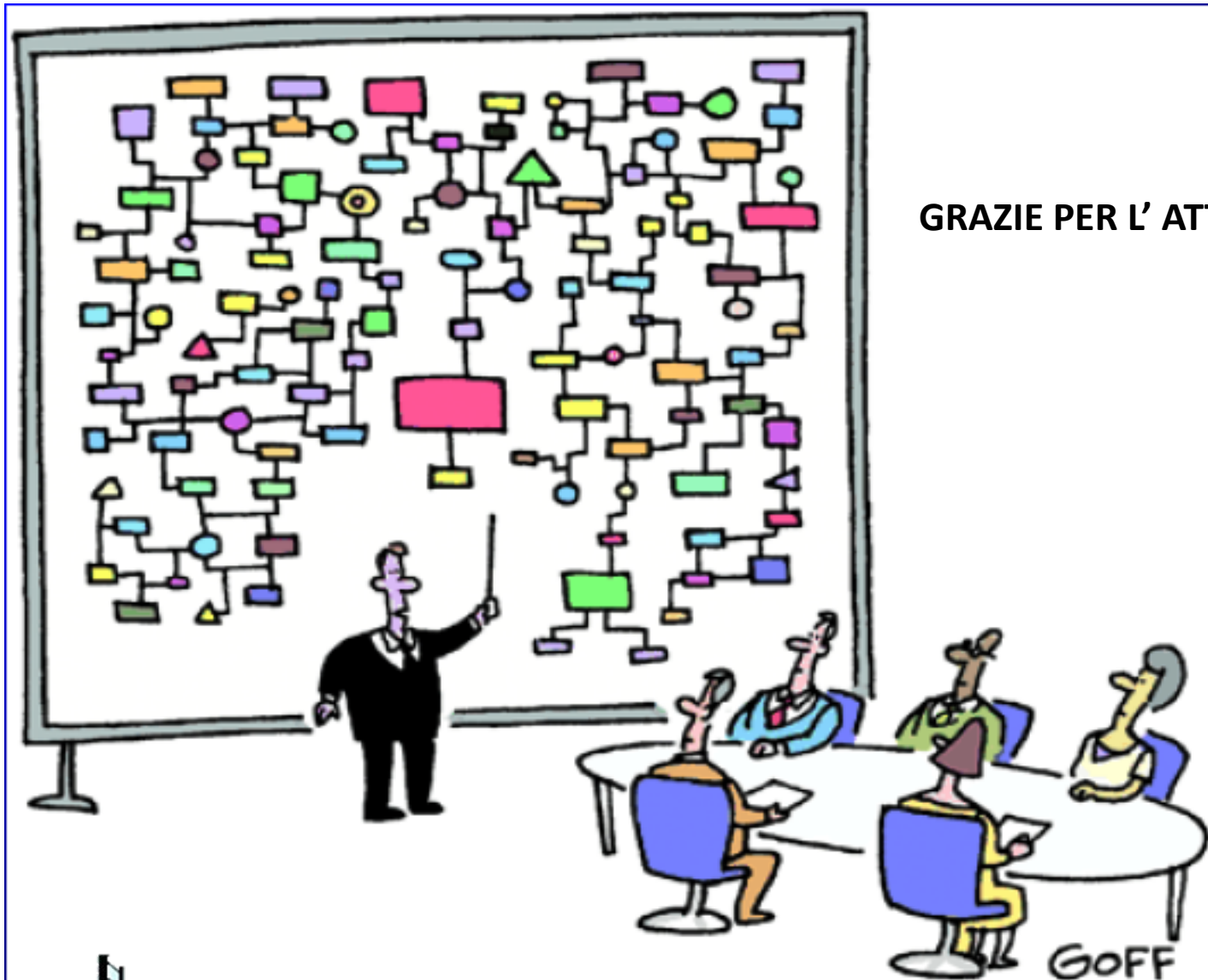
LACTOFERRIN



Rogan *et al. Respiratory Research* 2006 7:29

Phylogram





GRAZIE PER L' ATTENZIONE

GOFF

"And that's why we need a computer."