

Ruolo di antigeni sintetici nella diagnosi di SM

F. Lolli - Università di Firenze

Dipartimento Scienze Neurologiche

Dip. Chimica Organica

Dip Scienze Farmaceutiche

in

PEPTLAB

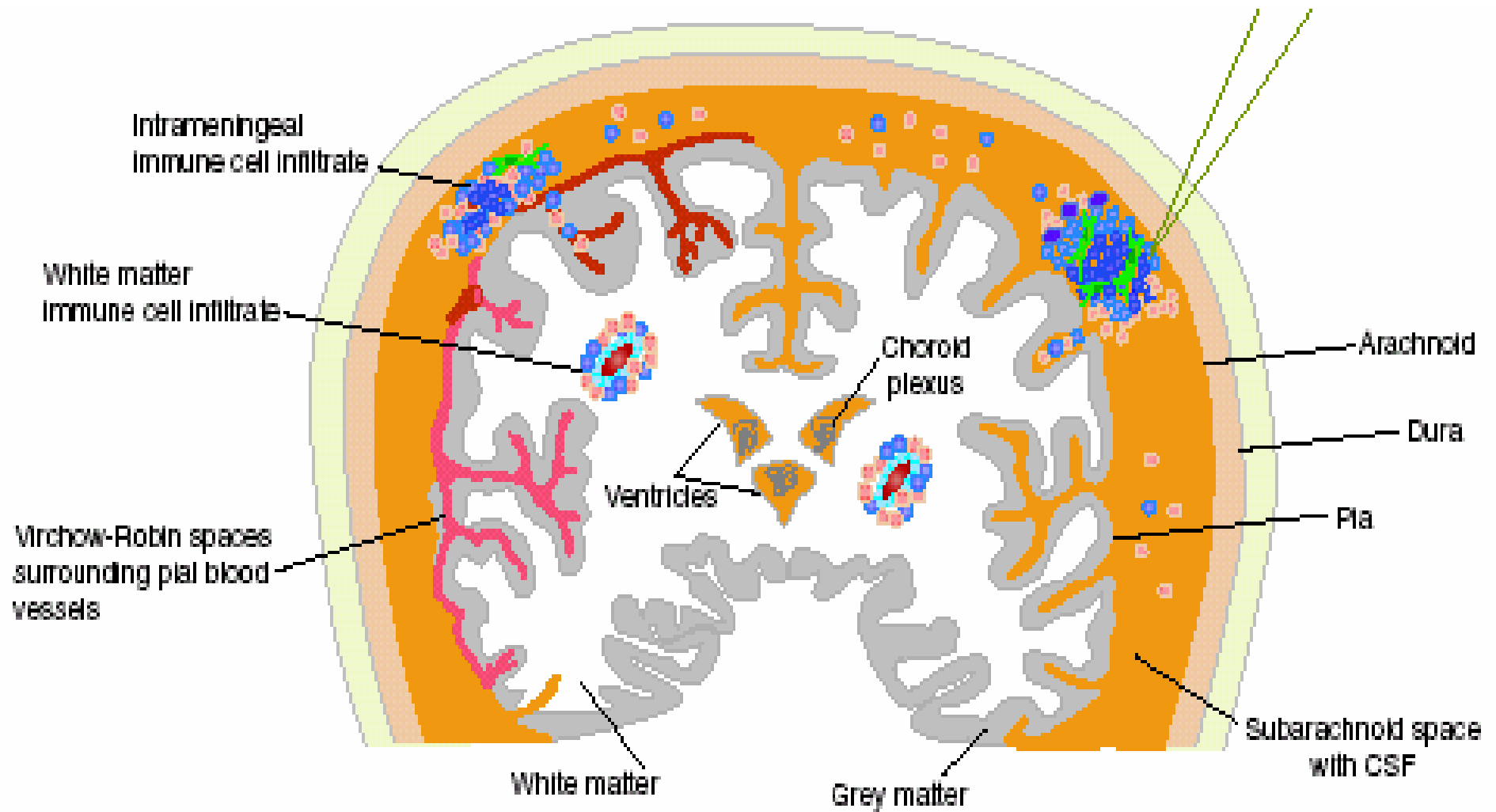
Conflitti di interesse: 1

Donna di 25 anni

- **AF: storie di emicrania, depressione, potus, Ictus, malattie psichiatriche**
- **APR: storia di anoressia, depressione e cefalea. Riferisce numerosi episodi di disequilibrio**

Donna di 25 anni

- ***APP: parestesie dell'arto superiore ed emivolto destro, ipostenia dell'arto superiore di destra. Durata un mese***
- ***MRI: alcune lesioni paraventricolari T2 iperintense alla risonanza magnetica.***
- ***Esame del liquor: normale indice di link, non bande oligoclonali IgG***



i cinque profili liquorali standard

(consensus europeo, *J Neurol Neurosurg Psychiatry* 1994;57:897)

		siero	liquor	pH
tipo 1	distribuzione policlonale delle IgG , assenza di sintesi intratecale			6.0 9.5
tipo 2	bande solo liquorali , presenza di sintesi intratecale (processi infiammatori cronici del SNC)			6.0 9.5
tipo 3	bande solo liquorali + bande S=LCS , presenza di sintesi intratecale (processi infiammatori acuti del SNC)			6.0 9.5
tipo 4	bande S=LCS (mirror pattern), assenza di sintesi intratecale (processi infiammatori sistemici)			6.0 9.5
tipo 5	bande S=LCS , spaziat. regolare e intensità decresc. assenza di sintesi intratecale (□-patie monoclonali)			6.0 9.5

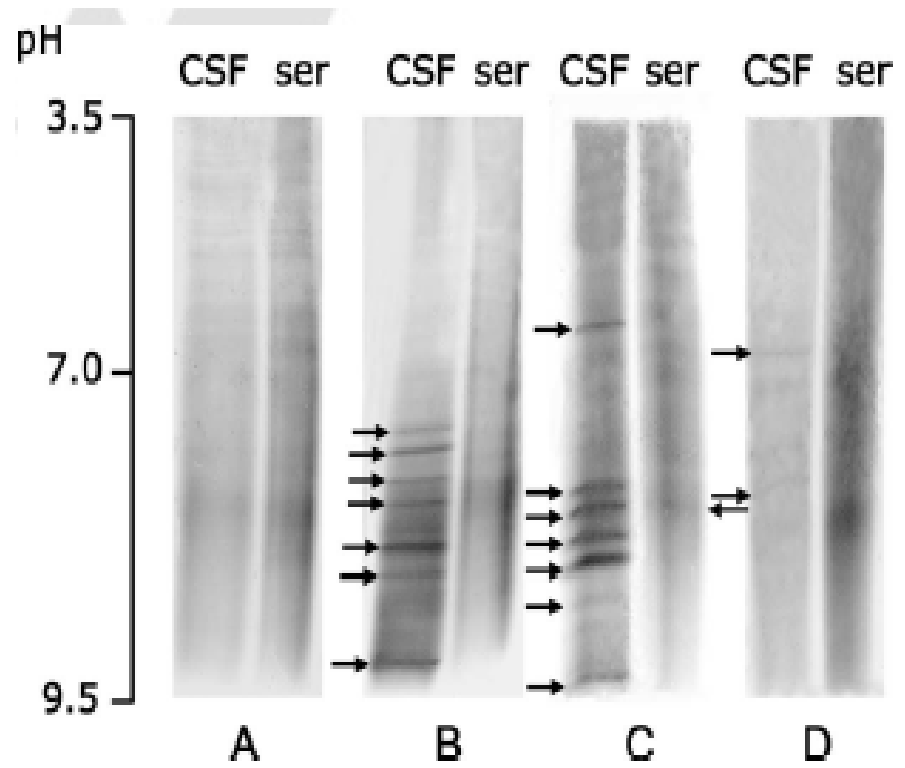
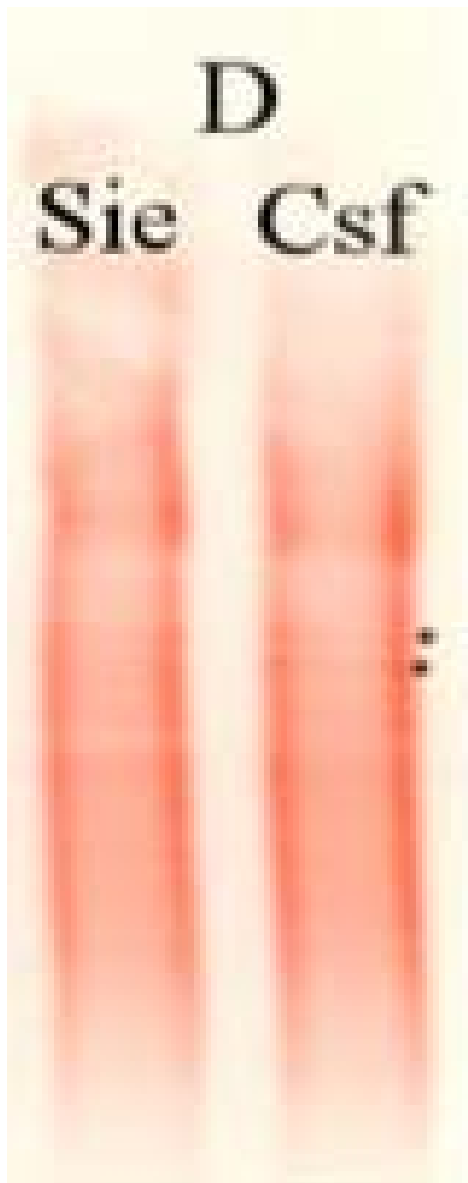
bande all'IEF

presenza/assenz a

	presenti (N° centri/totale)	assenti (N° centri/totale)
campione A	16/18	2/18
campione B	18/18	0/18
campione C	18/18	0/18
campione D	1/18	17/18
campione E	18/18	0/18

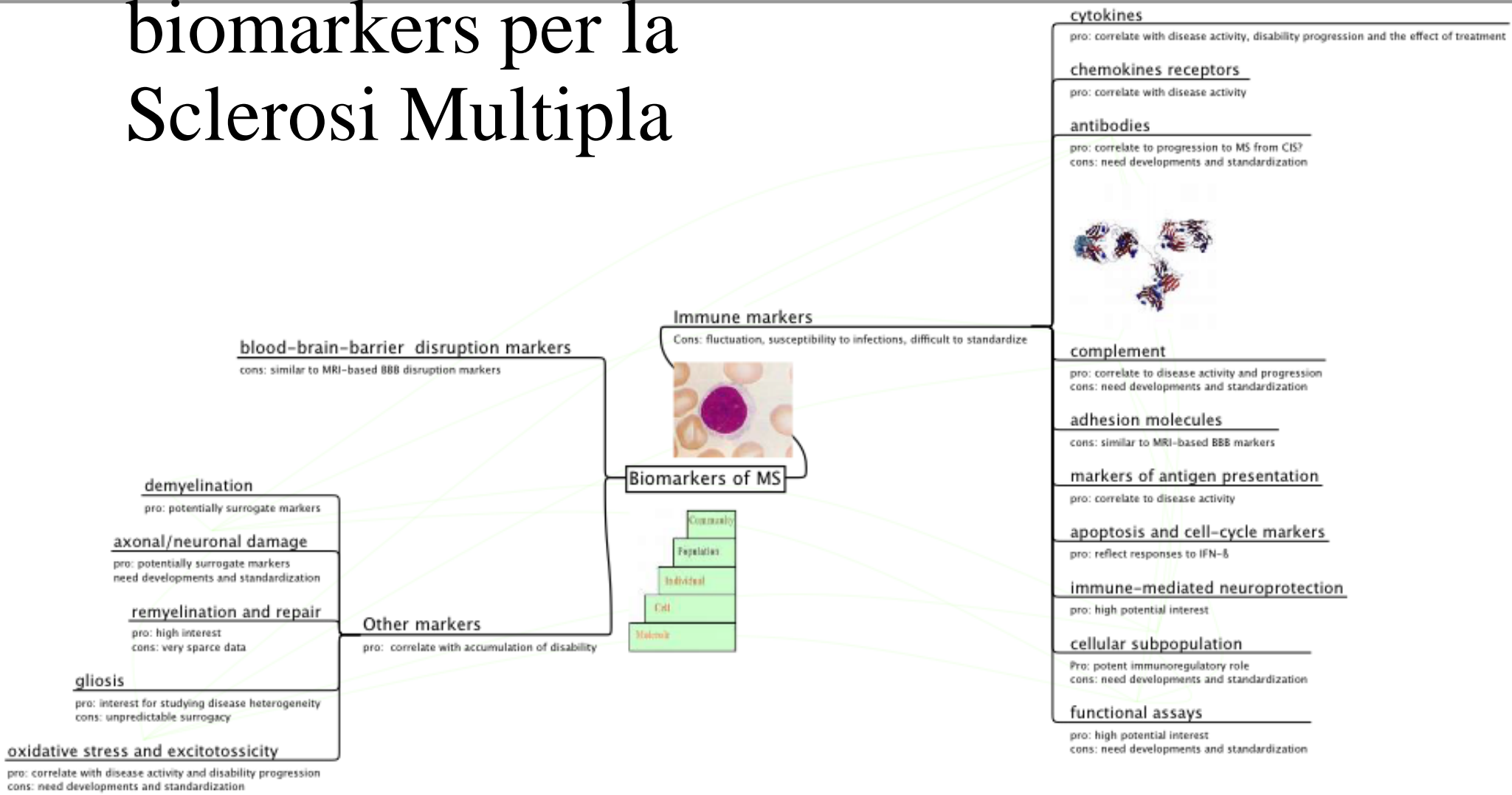
Il campione E (1:5) e il campione A (1:25) derivano da diluizioni seriali del campione C; il campione A testa il limite di detezione della metodica

Standardizzazioni AINI



Franciotta Lolli, Clin Chem 2007

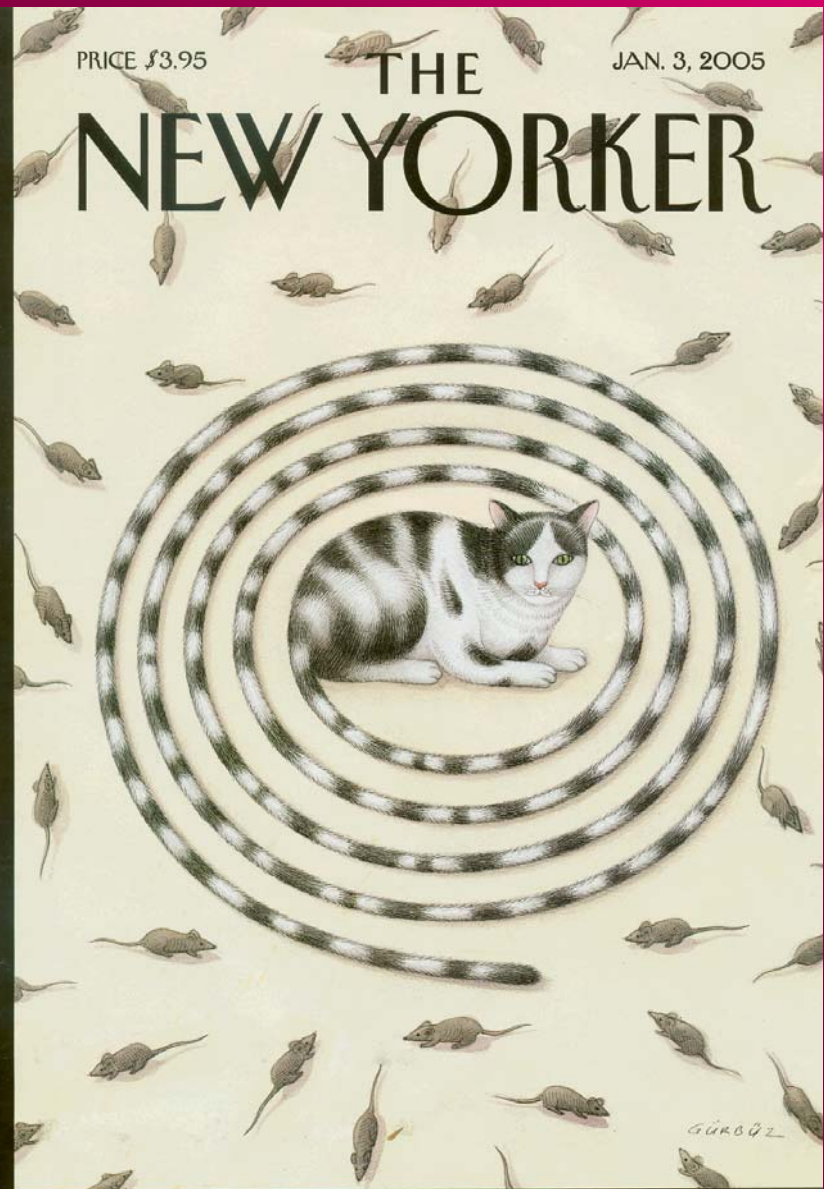
Sviluppo di nuovi biomarkers per la Sclerosi Multipla



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THE NEW YORKER

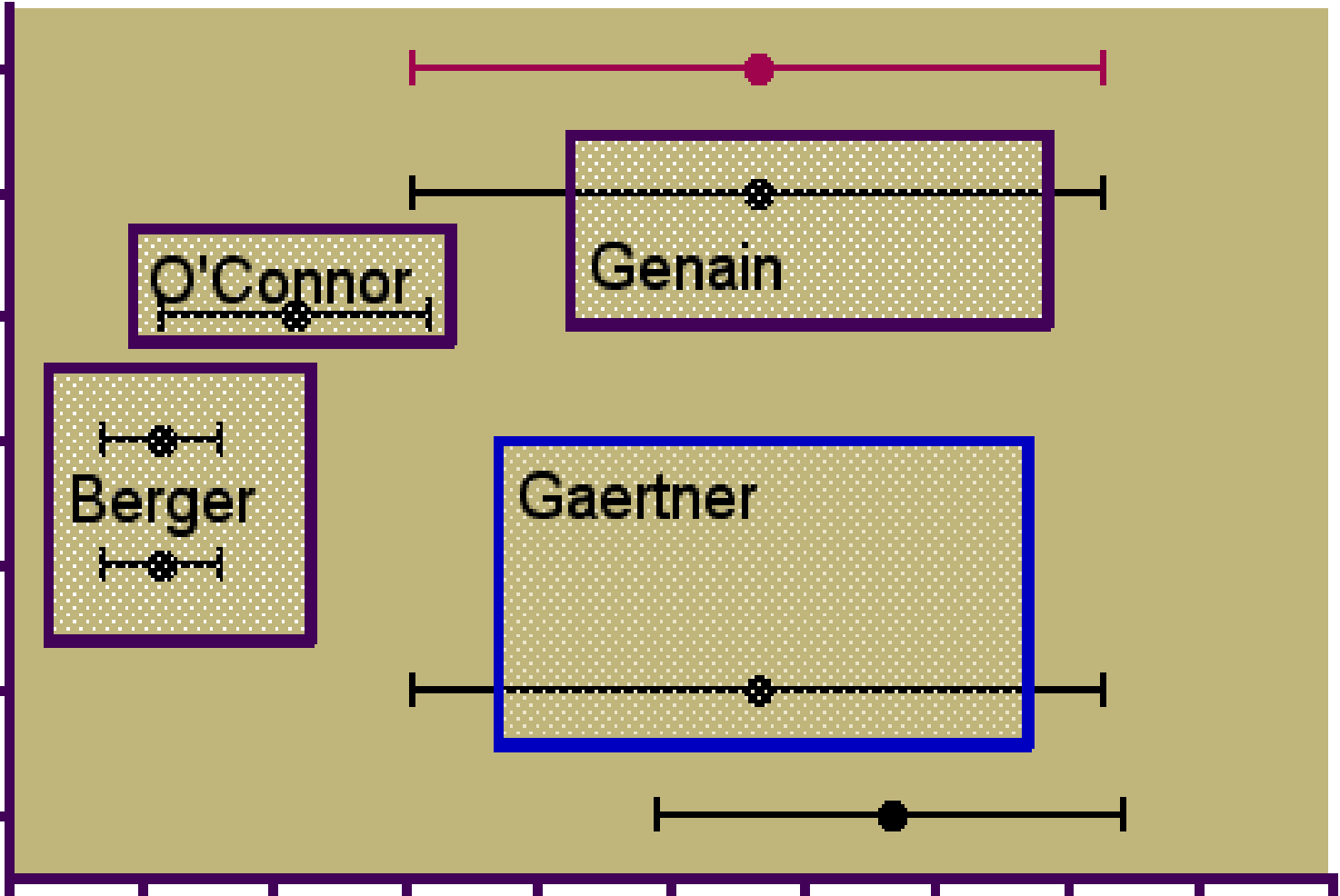


Anti-MOG

Anti-MOG antibodies

demyelinating diseases

DEVIC
PP MS
ADEM
CIS
FDE
RR MS
SP MS



years

IgM



IgG

Antimyelin Antibodies as a Predictor of Clinically Definite Multiple Sclerosis after a First Demyelinating Event

Thomas Berger, M.D., Paul Rubner, M.D., Franz Schautzer, M.D., Robert Egg, M.D., Hanno Ulmer, Ph.D., Irmgard Mayringer, M.D., Erika Dilitz, M.D., Florian Deisenhammer, M.D., and Markus Reindl, Ph.D.

PATIENTS

Patients with a first acute neurologic event suggestive of multiple sclerosis were enrolled in the study after their written informed consent to the protocol, as approved by the institutional review board, had been obtained. All the patients underwent cerebral MRI (T₂-weighted and gadolinium-enhanced, T₁-weighted scanning) within two weeks after the onset of the initial neurologic symptom. Patients were excluded from the study if they did not have typical disseminated white-matter lesions according to Fazekas and colleagues' criteria.³¹ In addition, initial diagnostic examination of the cerebrospinal fluid was performed in all the patients, and those whose cerebrospinal fluid did not show oligoclonal bands were excluded. Patients were also excluded from the study if they had a history of any kind of previous neurologic symptoms or signs; clinical, laboratory, MRI, or cerebrospinal fluid findings suggestive of any diagnosis other than multiple sclerosis³²; or primary progressive multiple sclerosis (diagnosed before month 12).

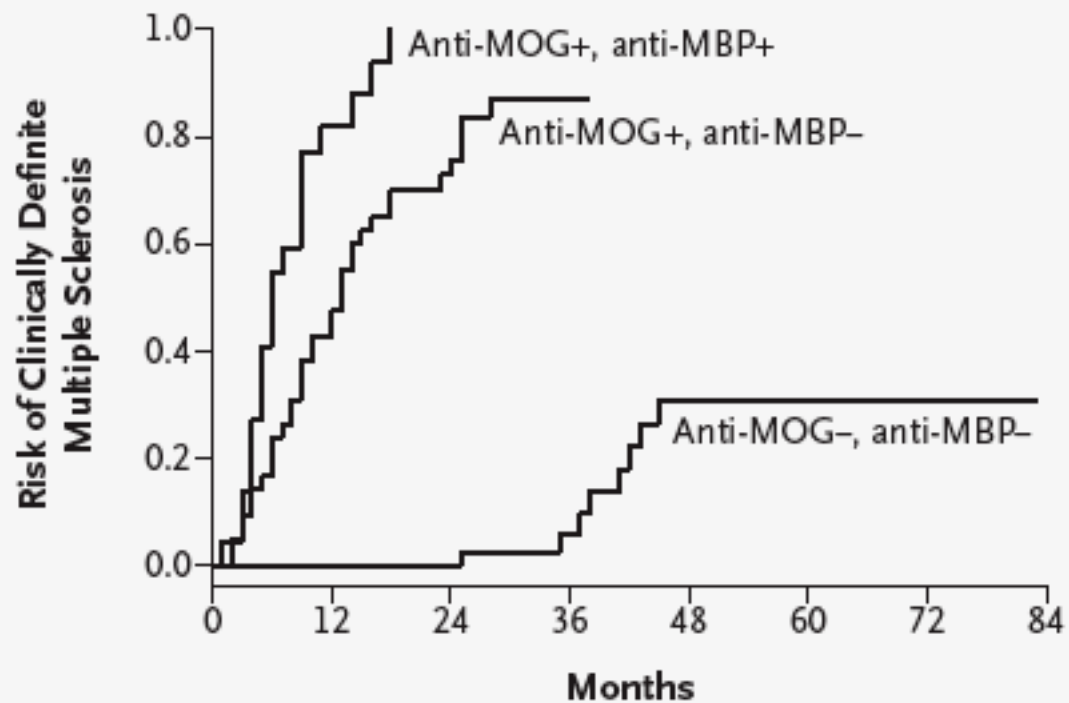
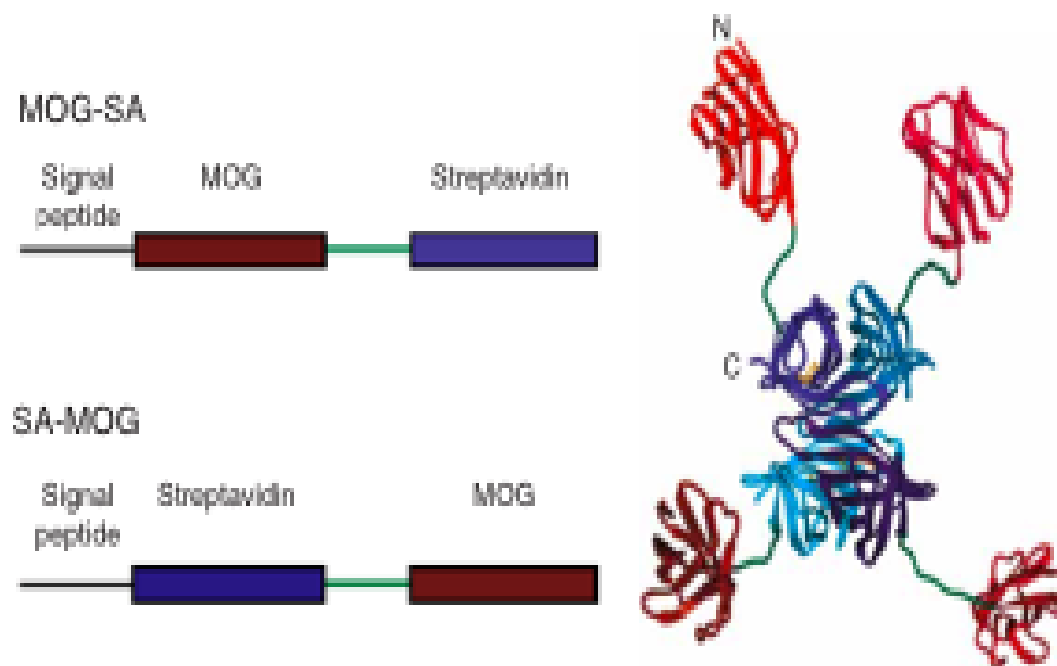


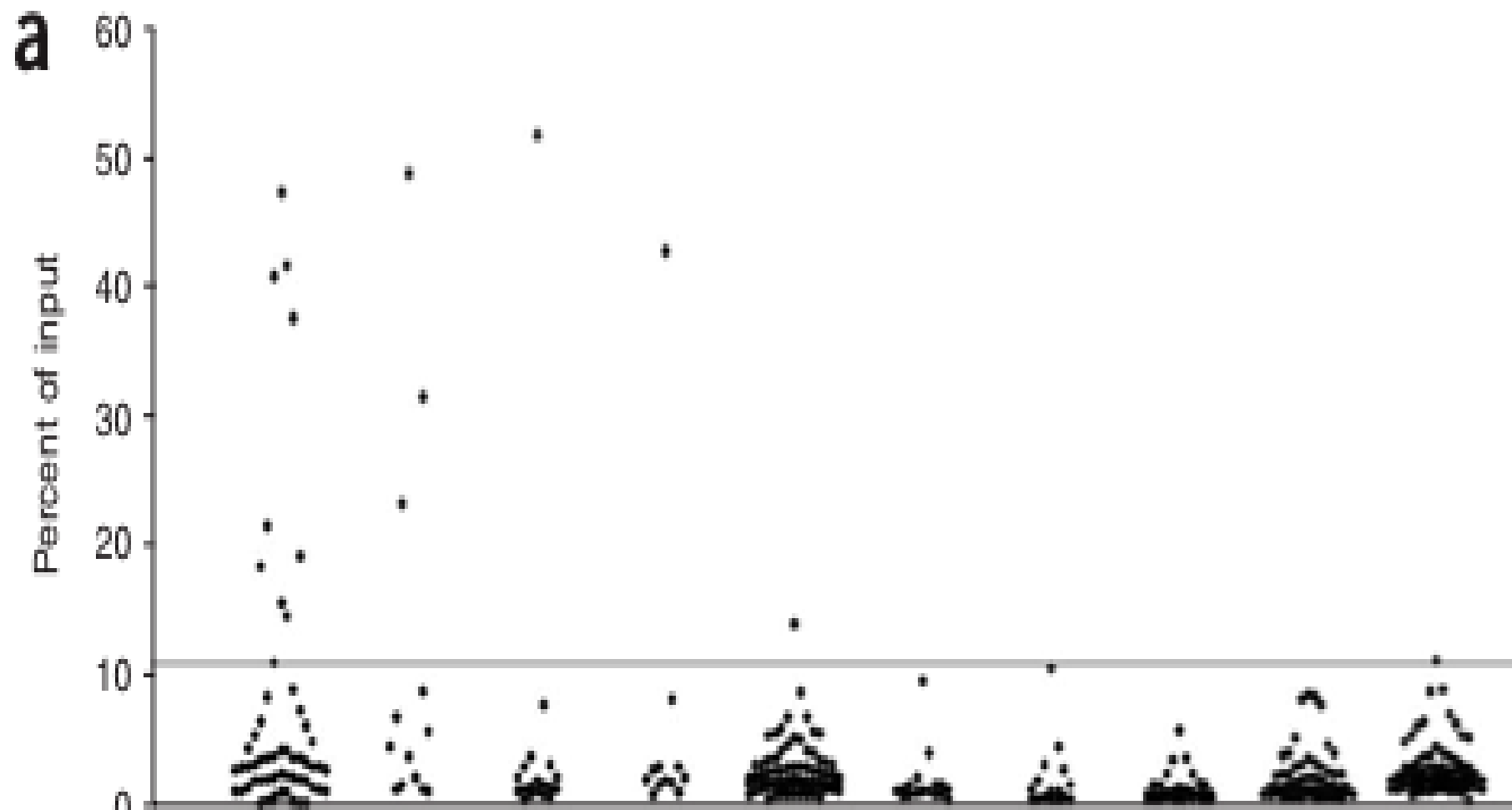
Figure 1. Kaplan–Meier Estimates of the Risk of Clinically Definite Multiple Sclerosis, According to Antibody Status.

$P < 0.001$ for the comparison between the patients who were seronegative for antibodies against both myelin oligodendrocyte glycoprotein (MOG) and myelin basic protein (MBP) and the patients who were seropositive only for anti-MOG antibodies or for both anti-MOG and anti-MBP antibodies. Plus signs denote seropositive, and minus signs seronegative.

Self-antigen tetramers discriminate between myelin autoantibodies to native or denatured protein

Kevin C O'Connor^{1-3,18}, Katherine A McLaughlin^{3,4,18}, Philip L De Jager^{1-3,5}, Tanuja Chitnis¹⁻³, Estelle Bettelli¹⁻³, Chenqi Xu^{3,4}, William H Robinson^{6,7}, Sunil V Cherry¹⁻³, Amit Bar-Or⁸, Brenda Banwell⁹, Hikoaki Fukaura¹⁰, Toshiyuki Fukazawa¹¹, Silvia Tenembaum¹², Susan J Wong¹³, Norma P Tavakoli¹³, Zhannat Idrissova¹⁴, Vissia Viglietta¹⁻³, Kevin Rostasy¹⁵, Daniela Pohl¹⁵, Russell C Dale¹⁶, Mark Freedman¹⁷, Lawrence Steinman^{6,7}, Guy J Buckle¹⁻³, Vijay K Kuchroo¹⁻³, David A Hafler^{1-4,18} & Kai W Wucherpfennig^{3,4,18}

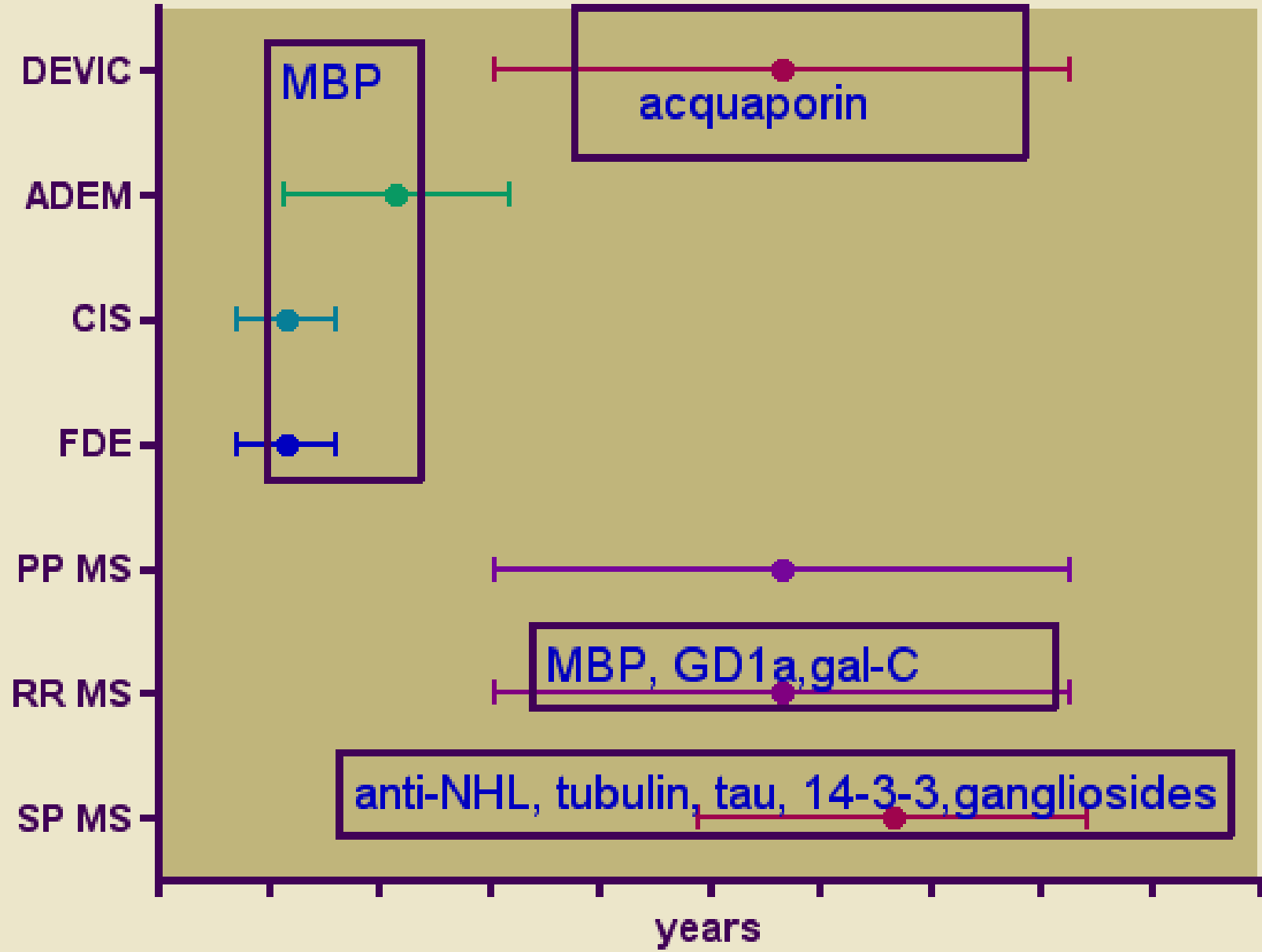




ADEM ADEM w/ relapse Ped MS Asian MS RRMS SPMS PPMS CIS Viral enceph Control

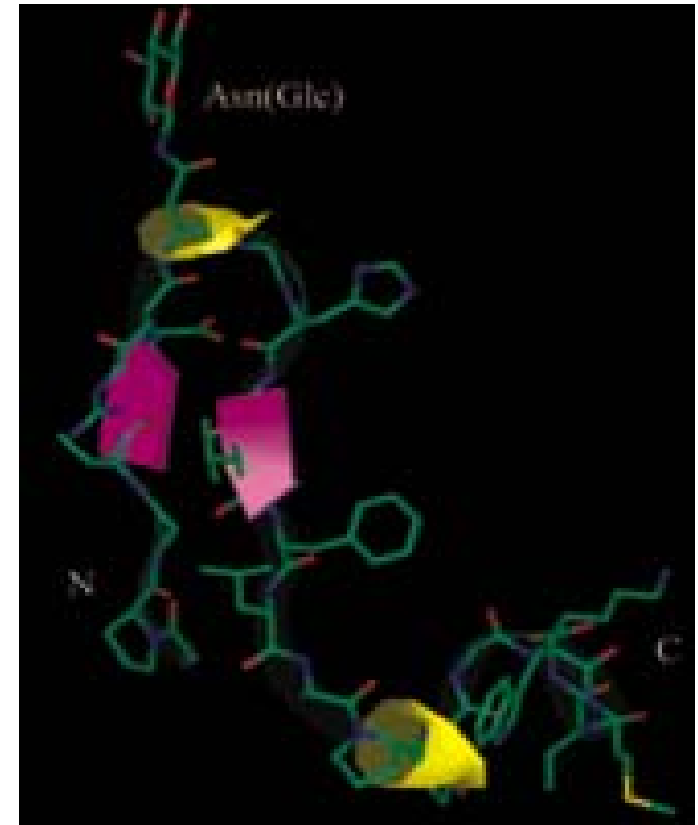
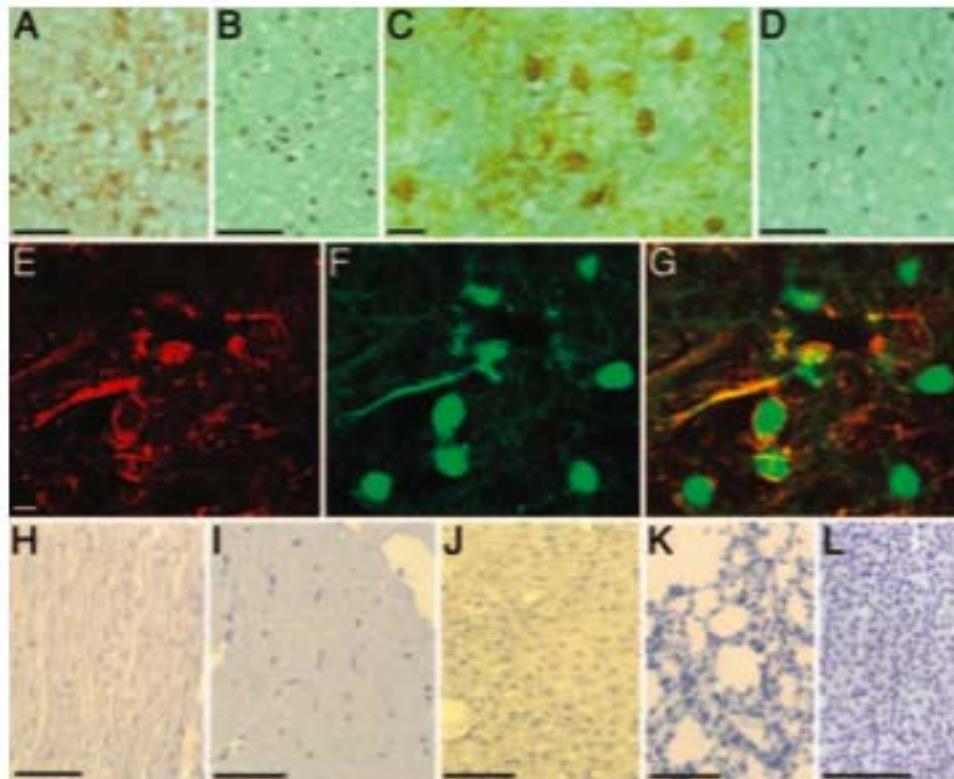
Anti-MOG +	10	3	1	1	1	0	0	0	0	1
<i>n</i>	56	13	19	12	76	17	16	32	58	75

Anticorpi a altri autoantigeni



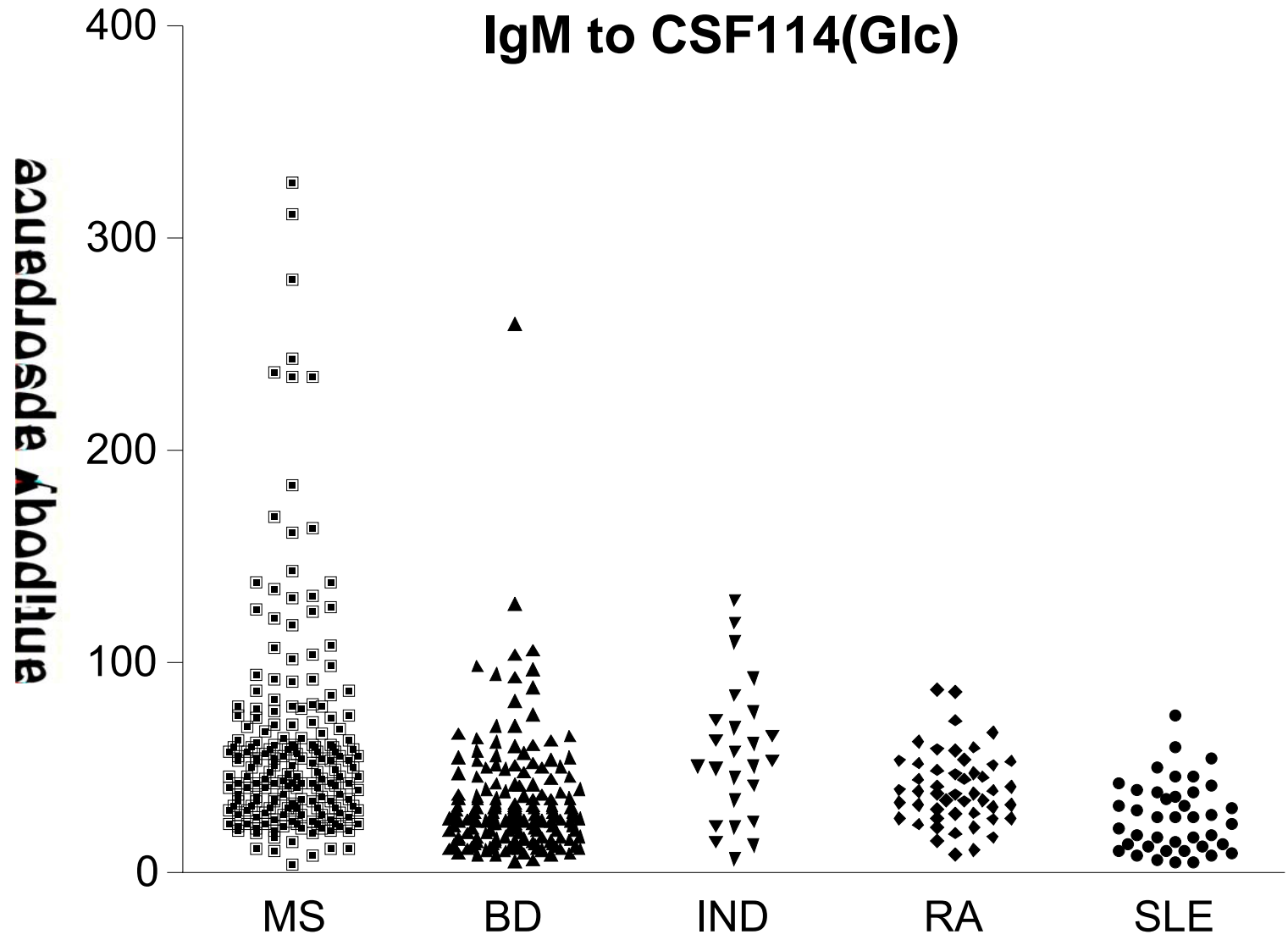
An N-glycosylated peptide detecting disease-specific autoantibodies, biomarkers of multiple sclerosis

Francesco Lolli^{1,2}, Barbara Mulinacci^{1,3}, Alfonso Carotenuto⁴, Bruno Bonetti⁵, Giuseppina Sabatino^{6,7}, Benedetta Mazzanti^{8,9}, Anna Maria D'Ursi¹⁰, Ettore Novellino¹¹, Marta Pazzagli^{12,13}, Laura Lovato¹⁴, Maria C. Alcaro¹⁵, Elisa Peroni¹⁶, Maria C. Pozo-Carrero^{17,18}, Francesca Nuti¹⁹, Luca Battistini²⁰, Giovanna Borsellino²¹, Mario Chelli²², Paolo Rovero^{23,24}, and Anna Maria Papini^{25,26}



PNAS 2005

IgM to CSF114(Glc)



Ringraziamenti



Università degli Studi di Firenze

