

Supplementary Data

HO-1/BVR-A System Analysis in Plasma from Probable Alzheimer's Disease and Mild Cognitive Impairment Subjects: A Potential Biochemical Marker for the Prediction of the Disease

Fabio Di Domenico^{a,*}, Eugenio Barone^{b,1}, Cesare Mancuso^b, Marzia Perluigi^a, Annalisa Cocciolo^a, Patrizia Mecocci^c, D. Allan Butterfield^d and Raffaella Coccia^a

^aDepartment of Biochemical Sciences, Sapienza University of Rome, Rome, Italy

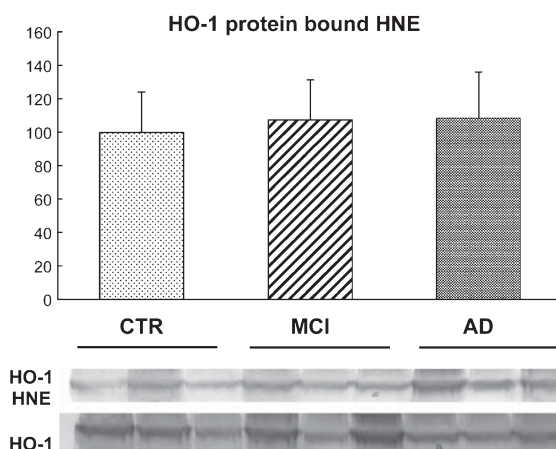
^bInstitute of Pharmacology, Catholic University School of Medicine, Roma, Italy

^cInstitute of Gerontology and Geriatrics, University of Perugia, Perugia, Italy

^dDepartment of Chemistry, Center of Membrane Sciences, and Sanders-Brown Center on Aging, University of Kentucky, Lexington, KY, USA

Handling Associate Editor: Kenneth Hensley

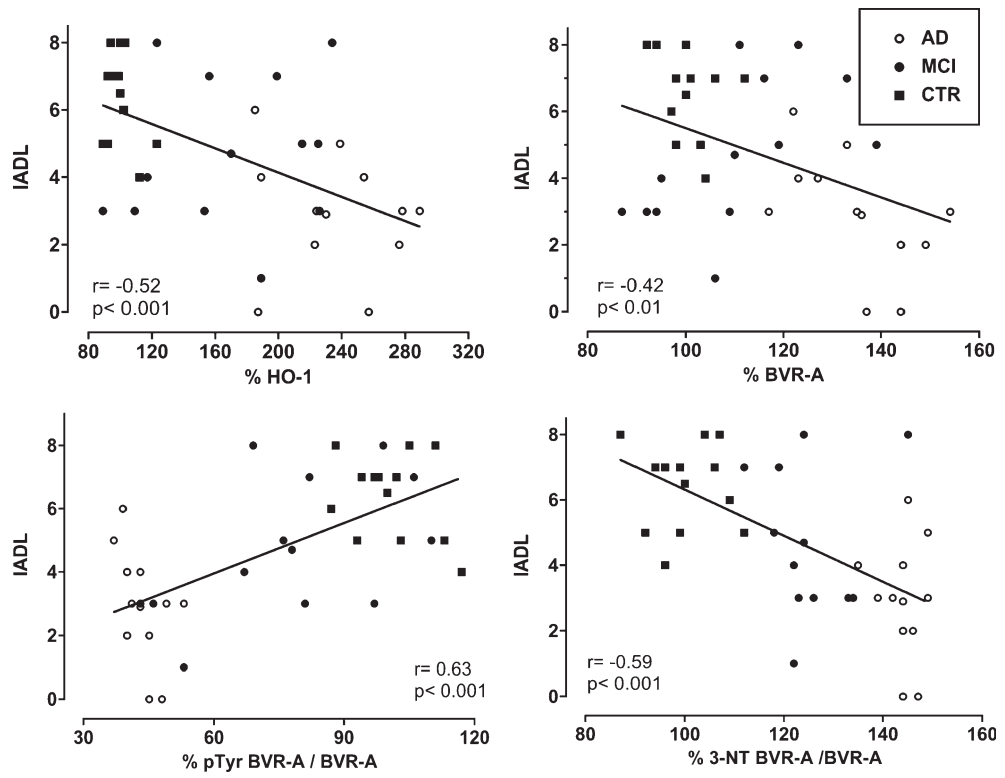
Accepted 30 May 2012



¹Current address: Brain Mind Institute, School of Life Sciences Swiss Federal Institute of Technology (EPFL) Station 15, Lausanne, Switzerland.

*Correspondence to: Fabio Di Domenico, Department of Biochemical Sciences "A. Rossi Fanelli", Sapienza University of Rome, P.le Aldo Moro, Rome 5 00185, Italy. Tel.: +39 0649910900; Fax: +39 064440062; E-mail: fabio.didomenico@uniroma1.it.

Supplementary Figure 1. Heme oxygenase-1 (HO-1) protein-bound 4-hydroxynonenal (HNE). No alteration of protein-bound HNE are shown during AD progression.



Supplementary Figure 2. Correlation results of HO-1/BVR-A alteration found in our study and IADL values.

Supplementary Table 1
Detailed information of all patients enrolled for the study

Subject#	Gender	Age	MMSE	ADL	IADL	GDS	CDR	HIS	CHOL	BSE	CRP
pAD 1	F	80	18/30	5/6	2/8	7/15	1	2	235	15	0.25
pAD 2	F	85	13/30	6/6	3/8	4/15	1	0	273	35	0.3
pAD 4	F	85	9/30	3/6	0/8		2	3	243	41	1.2
pAD 5	F	83	26/30	4/6	2/8	3/15	1	2	203	50	0.8
pAD 6	F	79	11/30	5/6	3/8	8/15	1	2	155	25	0.4
pAD 7	M	85	21/30	6/6	3/8	0/15	1	0	181	15	0.25
pAD 8	F	85	/	/	/	/	/	/	285	39	0.2
pAD 9	F	82	23/30	5/6	6/8	3/15	1	1	179	14	0.2
pAD 10	F	79	24/30	5/6	4/8	5/15	1	3	204	9	0.1
pAD 11	F	83	18/30	6/6	5/8	7/15	1	/	227	17	0.1
pAD 12	M	88	22/30	6/6	0/8	5/15	1	4	219	34	1.3
pAD 3	M	73	15/30	4/6	4/8	5/15	1	4	219	/	/
pAD AVG	9 F, 3 M	82.2	18.2/30	4.9/6	2.9/8	4.7/15	1	2.1	218	26.7	0.5
MCI 11	M	75	18/30	5/6	3/8	12/15	0.5	4	176	31	1.5
MCI 1	F	84	24/30	5/6	7/8	2/15	0.5	1	243	22	0.3
MCI 3	M	87	27/30	6/6	5/8	1/15	0.5	0	152	31	1.3
MCI 4	M	71	24/30	5/6	3/8	0/15	0.5	2	167	25	3.1
MCI 5	F	71	28/30	5/6	8/8	0/15	0.5	2	223	29	0.4
MCI 6	M	80	26/30	6/6	3/8	5/15	0.5	2	120	19	0.5
MCI 7	M	80	24/30	2/6	1/8	2/15	0.5	4	94	35	0.1
MCI 9	M	75	29/30	6/6	8/8	0/15	0.5	2	241	5	0.1
MCI 10	M	83	24/30	5/6	5/8	5/15	0.5	1	205	13	0.1
MCI 11	M	81	23/30	5/6	7/8	9/15	0.5	1	268	/	/
MCI 12	F	86	22/30	2/6	3/8	10/15	0.5	2	237	/	/
MCI 2	F	78	23/30	6/6	4/8	13/15	0.5	2	206	/	/
MCI AVG	4 F, 8 M	79.2	24.3/30	4.8/6	4.7/8	4.9/15	0.5	1.9	194.3	23.3	0.80
CTR 1	M	66	29/30	5/6	5/8	12/15	0	1	193	39	0.1
CTR 4	M	75	30/30	6/6	8/8	0/15	0	2	90	11	0.4
CTR 5	M	68	30/30	6/6	4/8	6/15	0	2	259	6	0.1
CTR 6	F	80	25/30	5/6	5/8	6/15	0	/	210	28	0.5
CTR 8	F	89	25/30	6/6	7/8	10/15	0	3	245	15	0.1
CTR 10	F	83	26/30	6/6	7/8	3/15	0	2	183	15	0.1
CTR 2	F	81	28/30	6/6	8/8	5/15	0	2	/	15	0.1
CTR 7	F	85	30/30	5/6	6/8	11/15	0	1	/	15	0.1
CTR 9	M	84	30/30	6/6	8/8	0/15	0	1	140	29	0.2
CTR 11	M	88	27/30	5/6	7/8	9/15	0	1	209	/	/
CTR 12	M	75	30/30	5/6	5/8	14/15	0	1	201	/	/
CTR 3	F	84	29/30	5/6	7/8	6/15	0	2	184	/	/
CTR AVG	6 F, 6 M	79.8	28.2/30	5.5/6	6.5/8	5.9/15	0	1.6	191.4	19.2	0.16

ADL, activities of daily living; BSE, erythrocytes sedimentation; CDR, clinical dementia rating; CHOL, cholesterol levels; CRP, C-reactive protein; GDS, geriatric depression scale, HIS, Hachinski ischemic score; IADL, instrumental activities of daily living; MCI, mild cognitive impairment; pAD, probable Alzheimer's disease.