Supplementary Table 1. Gene-specific primers used for real time RT-PCR assays in yeast

Gene	Accession #	Direction	Sequence	Position of primers
RNR3	NM_001179416.1	Forward primer	5′-ATATGGCTGCTGATCGTGCC-3′	2090-2109
		Reverse primer	5′-TCGGTAAGCGCAGATGCCGC-3′	2390-2371
GSH1	NM_001181534.1	Forward primer	5′-GCCACTGGACTATGATCTTG-3′	1200-1219
		Reverse primer	5′-CACGGAATACGCAGCGTTCT-3′	1464-1445
KAR2	NM_001181468.1	Forward primer	5′-CCAGCCAAATGTCCACCCG-3′	959-977
		Reverse primer	5′-GCTGCACCGTATGCAACAGC-3′	1256-1237
PRX1	NM_001178304.1	Forward primer	5′-TTGCCACAGCACCTATTCTG-3′	92-111
		Reverse primer	5′-CGTGGGACTCAACATCTTCC-3′	370-351

Supplementary Table 2. Role, accession numbers and specific primer pairs used for the RT-qPCR analysis in zebrafish

Function	Gene	Accession number	Primer (5′-3′)
Cytoskeleton support	*β-Actin*	NM_131031	[a]AAGTGCGACGTGGACA
			[b]GTTTAGGTTGGTCGTTCGTTTGA
Ion homeostasis and heavy metals detoxification	*mt2*	AY305851	[a]TGCGAATGCGCCAAGAC
			[b]GCCCTTACACACGCACG
Response to oxidative stress	*sod1*	BC055516	[a]TGAGACACGTCGGAGACC
			[b]TGCCGATCACTCCACAGG
Neurotransmission	*ache*	NM_131846	[a]CCCGCACTGGTAATCC
			[b]GTTAAGCAGACGAGGC

[a]Forward primer; [b]Reverse primer.

Supplementary Table 3. Total mercury concentration in the brain, the liver and the muscle of fish fed with different diets during 60 days. Total mercury levels are expressed as μg Hg/g f.w. (mean ± SD, $n = 3$)

	Control	*P. reticulata*[a]	*P. reticulata* + MeHg[b]	*C. favosus*[a]	*C. favosus* + MeHg[b]	MeHg[c]
Brain	0.08 ± 0.03[¤]	0.07 ± 0.02[¤]	18.9 ± 2.28*	0.12 ± 0.04[¤]	18.4 ± 0.57*	17.2 ± 1.68*
Liver	0.08 ± 0.01[¤]	0.09 ± 0.04[¤]	10.2 ± 1.70*,[¤]	0.09 ± 0.03[¤]	16.5 ± 1.04*	20.4 ± 4.64*
Muscle	0.14 ± 0.03[¤]	0.12 ± 0.02[¤]	8.62 ± 0.63*	0.13 ± 0.01[¤]	8.18 ± 0.86*	8.96 ± 0.50*

[a]Food supplemented by 0.5% of either the plant extract of *P. reticulata* or that of *C. favosus*.
[b]Food containing 0.5% of either the plant extract of *P. reticulata* or that of *C. favosus* and 13.5 μg MeHg/g (f.w.).
[c]Fish fed with MeHg contaminated food (13.5 μg MeHg/g f.w.).
Significant accumulation as compared to the control condition ($p < 0.05$).
[¤]Significantly different from the MeHg condition ([¤]$p < 0.05$).

Supplementary Table 4. Levels of TBARS measured in the tissues of fish fed with different diets during 60 days. The data corresponds to the concentrations expressed as nmol of TBARS/mg of proteins (mean ± SD; $n = 3$)

	Control	*P. reticulata*[a]	*P. reticulata* + MeHg[b]	*C. favosus*[a]	*C. favosus* + MeHg[b]	MeHg[c]
Brain	0.92 ± 0.07[¤]	1.09 ± 0.12[¤]	1.05 ± 0.15[¤]	1.02 ± 0.16[¤]	0.99 ± 0.20[¤]	1.32 ± 0.02*
Liver	1.57 ± 0.09[¤]	1.11 ± 0.02*,[¤]	1.35 ± 0.12*,[¤]	1.03 ± 0.04*,[¤]	1.14 ± 0.07*,[¤]	4.71 ± 0.55*
Muscle	0.80 ± 0.06	0.85 ± 0.12	0.97 ± 0.36	0.87 ± 0.14	0.73 ± 0.08	0.87 ± 0.37

[a]Food supplemented by 0.5% of either the plant extract of *P. reticulata* or that of *C. favosus*.
[b]Food containing 0.5% of either the plant extract of *P. reticulata* or that of *C. favosus* and 13.5 μg MeHg/g (f.w.).
[c]Fish fed with MeHg contaminated food (13.5 μg MeHg/g f.w.).
Significant accumulation as compared to the control condition ($p < 0.05$). [¤]Significantly different from the MeHg condition ([¤]$p < 0.05$).

Supplementary Table 5. Values measured for the initial specific activity of the AChE in the tissues of fish fed with different diets during 60 days. Values are expressed as nmol of substrate hydrolyzed/mg of protein/min (mean ± SD; $n = 3$)

	Control	*P. reticulata*[a]	*P. reticulata* + MeHg[b]	*C. favosus*[a]	*C. favosus* + MeHg[b]	MeHg[c]
Brain	789 ± 13[¤]	997 ± 120*,[¤]	1182 ± 114*,[¤]	847 ± 44[¤]	790 ± 48	677 ± 64*
Muscle	391 ± 46[¤]	525 ± 23*,[¤]	663 ± 121*,[¤]	548 ± 54*,[¤]	453 ± 74[¤]	252 ± 21*

[a]Food supplemented by 0.5% of either the plant extract of *P. reticulata* or that of *C. favosus*.
[b]Food containing 0.5% of either the plant extract of *P. reticulata* or that of *C. favosus* and 13.5 μg MeHg/g (f.w.).
[c]Fish fed with MeHg contaminated food (13.5 μg MeHg/g f.w.).
Significant accumulation as compared to the control condition ($p < 0.05$). [¤]Significantly different from the MeHg condition ([¤]$p < 0.05$).

Supplementary Table 6. Differential genes expression[a] reported in the brain, the liver and the skeletal muscle of zebrafish fed with different diets during 60 days as compared to the control condition

	P. reticulata[a]	*P. reticulata* + MeHg[b]	*C. favosus*[a]	*C. favosus* + MeHg[b]	MeHg[d]
Brain					
mt2	=	4	=	=	1/9
sod1	=	19	=	22	28
ache	=	14	=	5	=
Liver					
mt2	=	24	=	14	1/4
sod1	=	=	=	=	1/14
Skeletal muscle					
mt2	=	4	=	=	1/5
sod1	=	=	=	=	1/3
ache	=	=	=	=	1/5

[a]The differential expression reported correspond to the significant change of the relative gene expression in a test condition as compared to the control condition. It was calculated by dividing the relative expression of the considered gene in the test condition by its level of expression in the control condition (without extract, without MeHg).
= indicates a lack of significant change of the relative gene expression in a test condition as compared to the control condition.
[b]Food supplemented by 0.5% of either the plant extract of *P. reticulata* or that of *C. favosus*.
[c]Food containing 0.5% of either the plant extract of *P. reticulata* or that of *C. favosus* and 13.5 μg MeHg/g (f.w.).
[d]Fish fed with MeHg contaminated food (13.5 μg MeHg/g f.w.).