

Supplementary data

Table S1. Statistical comparison of the mRNA expression of IFN- γ by *Leishmania*-infected MLC-A1 cells treated with HEM, hemolymph; FRA, hemolymph fraction; MAT, meglumine antimoniate and their combinations

Treatment types	UC	MAT100	MAT200	HEM100	HEM200	FRA100	FRA200	HEM+MAT100	HEM+MAT200	FRA+MAT100	FRA+MAT200
UC	-	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
MAT100	0.001	-	NS	0.0048	NS	NS	NS	NS	NS	NS	0.001
MAT200	0.001	NS	-	0.001	0.001	0.001	NS	NS	NS	NS	0.001
HEM100	0.001	0.0048	0.001	-	NS	NS	0.001	0.0001	0.0001	0.0001	0.0001
HEM200	0.001	NS	0.001	NS	-	NS	NS	0.0048	0.0001	0.0001	0.0001
FRA100	0.001	NS	0.001	NS	NS	-	NS	0.001	0.0001	0.0001	0.0001
FRA200	0.001	NS	NS	0.001	NS	NS	-	NS	0.0002	0.0213	0.0001
HEM+MAT100	0.001	NS	NS	0.0001	0.0048	0.001	NS	-	0.0213	NS	0.0001
HEM+MAT200	0.001	NS	NS	0.0001	0.0001	0.0001	0.0002	0.0213	-	NS	NS
FRA+MAT100	0.001	NS	NS	0.0001	0.0001	0.0001	0.0213	NS	NS	-	0.001
FRA+MAT200	0.001	0.001	0.001	0.0001	0.0001	0.0001	0.0001	0.0001	NS	0.001	-

NS: Non significant

Table S2. Statistical comparison of the mRNA expression of IL-12 by *Leishmania*-infected MLC-A1 cells treated with HEM, hemolymph; FRA, hemolymph fraction; MAT, meglumine antimoniate and their combinations

Treatment types	UC	MAT100	MAT200	HEM100	HEM200	FRA100	FRA200	HEM+MAT100	HEM+MAT200	FRA+MAT100	FRA+MAT200
UC	-	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
MAT100	0.001	-	NS	0.0048	NS	NS	NS	NS	NS	NS	0.001
MAT200	0.001	NS	-	0.001	0.001	0.001	NS	NS	NS	NS	0.001
HEM100	0.001	0.0048	0.001	-	NS	NS	0.001	0.0001	0.0001	0.0001	0.0001
HEM200	0.001	NS	0.001	NS	-	NS	NS	0.0048	0.0001	0.0001	0.0001
FRA100	0.001	NS	0.001	NS	NS	-	NS	0.001	0.0001	0.0001	0.0001
FRA200	0.001	NS	NS	0.001	NS	NS	-	NS	0.0002	0.0213	0.0001
HEM+MAT100	0.001	NS	NS	0.0001	0.0048	0.001	NS	-	0.0213	NS	0.0001
HEM+MAT200	0.001	NS	NS	0.0001	0.0001	0.0001	0.0002	0.0213	-	NS	NS
FRA+MAT100	0.001	NS	NS	0.0001	0.0001	0.0001	0.0213	NS	NS	-	0.001
FRA+MAT200	0.0001	0.001	0.001	0.0001	0.0001	0.0001	0.0001	0.0001	NS	0.001	-

NS: Non significant

Table S3. Statistical comparison of the mRNA expression of iNOS by *Leishmania*-infected MLC-A1 cells treated with HEM, hemolymph; FRA, hemolymph fraction; MAT, meglumine antimoniate and their combinations

Treatment types	UC	MAT100	MAT200	HEM100	HEM200	FRA100	FRA200	HEM+MAT100	HEM+MAT200	FRA+MAT100	FRA+MAT200
UC	-	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
MAT100	0.0001	-	0.0012	NS	NS	NS	NS	NS	0.0001	0.0012	0.0001
MAT200	0.0001	0.0012	-	0.0001	0.0053	0.0011	NS	NS	NS	NS	0.0012
HEM100	0.0001	NS	0.0001	-	NS	NS	0.0012	0.0012	0.0001	0.0001	0.0001
HEM200	0.0001	NS	0.0053	NS	-	NS	NS	NS	0.0001	0.0053	0.0001
FRA100	0.0001	NS	0.0011	NS	NS	-	NS	NS	0.0001	0.0011	0.0001
FRA200	0.0001	NS	NS	0.0012	NS	NS	-	NS	0.0012	NS	0.0001
HEM+MAT100	0.0001	NS	NS	0.0012	NS	NS	NS	-	0.0012	NS	0.0001
HEM+MAT200	0.0001	0.0001	NS	0.0001	0.0001	0.0001	0.0012	0.0012	-	NS	NS
FRA+MAT100	0.0001	0.0012	NS	0.0001	0.0053	0.0011	NS	NS	NS	-	0.0012
FRA+MAT200	0.0001	0.0001	0.0012	0.0001	0.0001	0.0001	0.0001	0.0001	NS	0.0012	-

NS: Non significant

Table S4. Statistical comparison of the mRNA expression of TNF- α by *Leishmania*-infected MLC-A1 cells treated with HEM, hemolymph; FRA, hemolymph fraction; MAT, meglumine antimoniate and their combinations

Treatment types	UC	MAT100	MAT200	HEM100	HEM200	FRA100	FRA200	HEM+MAT100	HEM+MAT200	FRA+MAT100	FRA+MAT200
UC	-	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
MAT100	0.0001	-	0.0006	NS	NS	NS	NS	NS	0.0001	0.0024	0.0001
MAT200	0.0001	0.0006	-	0.0001	0.0024	0.0002	NS	NS	NS	NS	0.0024
HEM100	0.0001	NS	0.0001	-	NS	NS	0.0006	0.0006	0.0001	0.0001	0.0001
HEM200	0.0001	NS	0.0024	NS	-	NS	NS	NS	0.0001	0.0097	0.0001
FRA100	0.0001	NS	0.0002	NS	NS	-	0.0264	0.0264	0.0001	0.0001	0.0001
FRA200	0.0001	NS	NS	0.0006	NS	0.0264	-	NS	0.0006	NS	0.0001
HEM+MAT100	0.0001	NS	NS	0.0006	NS	0.0264	NS	-	0.0006	NS	0.0001
HEM+MAT200	0.0001	0.0001	NS	0.0001	0.0001	0.0001	0.0006	0.0006	-	0.0373	NS
FRA+MAT100	0.0001	0.0024	NS	0.0001	0.0097	0.0006	NS	NS	0.0373	-	0.0006
FRA+MAT200	0.0001	0.0001	0.0024	0.0001	0.0001	0.0001	0.0001	0.0001	NS	0.0006	-

NS: Non significant

Table S5. Statistical comparison of the mRNA expression of IL-10 by *Leishmania*-infected MLC-A1 cells treated with HEM, hemolymph; FRA, hemolymph fraction; MAT, meglumine antimoniate and their combinations

Treatment types	UC	MAT100	MAT200	HEM100	HEM200	FRA100	FRA200	HEM+MAT100	HEM+MAT200	FRA+MAT100	FRA+MAT200
UC	-	0.0001	0.0001	0.0109	0.0001	0.0607	0.0001	0.0001	0.0001	0.0001	0.0001
MAT100	0.0001	-	NS	NS	NS	NS	NS	NS	0.0001	0.0256	0.0001
MAT200	0.0001	NS	-	0.0001	NS	0.0003	NS	NS	0.0109	NS	0.0008
HEM100	0.0109	NS	0.0001	-	NS	NS	0.0046	0.0019	0.0001	0.0001	0.0001
HEM200	0.0001	NS	NS	NS	-	NS	NS	NS	0.0001	NS	0.0001
FRA100	0.0607	NS	0.0003	NS	NS	-	0.0001	0.0063	0.0029	0.0001	0.0001
FRA200	0.0001	NS	NS	0.0046	NS	0.0001	-	NS	0.0003	NS	0.0001
HEM+MAT100	0.0001	NS	NS	0.0019	NS	0.0063	NS	-	0.0008	NS	0.0001
HEM+MAT200	0.0001	0.0001	0.0109	0.0001	0.0001	0.0029	0.0003	0.0008	-	0.0256	NS
FRA+MAT100	0.0001	0.0256	NS	0.0001	NS	0.0001	NS	NS	0.0256	-	0.0019
FRA+MAT200	0.0001	0.0001	0.0008	0.0001	0.0001	0.0001	0.0001	0.0001	NS	0.0019	-

NS: Non significant

Table S6. Statistical comparison of the mRNA expression of TGF- β by *Leishmania*-infected MLC-A1 cells treated with HEM, hemolymph; FRA, hemolymph fraction; MAT, meglumine antimoniate and their combinations

Treatment types	UC	MAT100	MAT200	HEM100	HEM200	FRA100	FRA200	HEM+MAT100	HEM+MAT200	FRA+MAT100	FRA+MAT200
UC	-	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
MAT100	0.0001	-	NS	0.0477	NS	NS	0.0159	0.0005	0.0005	0.0001	0.0001
MAT200	0.0001	NS	-	0.0159	NS	NS	0.0477	NS	0.0016	NS	0.0016
HEM100	0.0001	0.0477	0.0159	-	NS	0.0001	0.0001	0.0001	0.0001	0.0007	0.0001
HEM200	0.0001	NS	NS	NS	-	NS	NS	NS	0.0001	NS	0.0001
FRA100	0.0001	NS	NS	0.0001	NS	-	0.0002	0.0054	0.0007	0.0001	0.0001
FRA200	0.0001	0.0159	0.0477	0.0001	NS	0.0002	-	NS	NS	0.0002	0.0001
HEM+MAT100	0.0001	0.0005	NS	0.0001	NS	0.0054	NS	-	0.0016	NS	NS
HEM+MAT200	0.0001	0.0005	0.0016	0.0001	0.0001	0.0007	NS	0.0016	-	NS	0.0016
FRA+MAT100	0.0001	0.0001	NS	0.0007	NS	0.0001	0.0002	NS	NS	-	NS
FRA+MAT200	0.0001	0.0001	0.0016	0.0001	0.0001	0.0001	0.0001	NS	0.0016	NS	-

NS: Non significant

Table S7. Statistical comparison of the ROS production by *Leishmania*-infected MLC-A1 cells treated with HEM, hemolymph; FRA, hemolymph fraction; MAT, meglumine antimoniate and their combinations

Treatment	UC	MAT	HEM	FRA	HEM+MAT	FRA+MAT
UC	–	0.0001	0.0133	0.0016	0.0001	0.0001
MAT	0.0001	–	0.0192	NS	NS	0.0008
HEM	0.0133	0.0192	–	NS	0.0001	0.0001
FRA	0.0016	NS	NS	–	0.0007	0.0001
HEM+MAT	0.0001	NS	0.0001	0.0007	–	NS
FRA+MAT	0.0001	0.0008	0.0001	0.0001	NS	–

NS: Non significant

Table S8. Statistical comparison of changes in skin lesion diameter in BALB/c mice infected with *Leishmania major* over 28 days of treatment. Groups are labeled as untreated control (UC), cream base, Hemolymph intraperitoneal (HEM IP), Hemolymph topical (HEM TP), meglumine antimoniate (MAT) IP, MAT + HEM IP, MAT + HEM topical

Treatment	UC	MA (Inj)	HL (Inj)	HL (Cr)	HL (Cr)+MA	HL (Inj)+MA	Cr
UC	–	0.0001	0.0003	0.0014	0.0001	0.0001	NS
MA (Inj)	0.0001	–	NS	0.041	NS	NS	0.0001
HL (Inj)	0.0003	NS	–	NS	0.0032	0.0268	0.0049
HL (Cr)	0.0014	0.041	NS	–	0.0006	0.0049	0.0268
HL (Cr)+MA	0.0001	NS	0.0032	0.0006	–	NS	0.0001
HL (Inj)+MA	0.0001	NS	0.0268	0.0049	NS	–	0.0001
Cr	NS	0.0001	0.0049	0.0268	0.0001	0.0001	–

NS: Non significant

Table S9. Statistical comparison of the mRNA expression of RV1 in popliteal lymph nodes of *Leishmania major*-infected BALB/c mice following 28 days of treatment with *Lucilia sericata* hemolymph (HEM) cream, its active fraction (FRA) cream, meglumine antimoniate (MAT), and their combination. The untreated control (UC) represents baseline expression. NS: Non significant

Treatment	UC	MAT (Inj)	HL (Inj)	HL (Cr)	HL (Cr)+MA	HL (Inj)+MA	Cr
UC	–	0.0092	0.0229	0.0306	0.0013	0.0029	NS
MAT (Inj)	0.0092	–	NS	NS	NS	NS	0.0207
HL (Inj)	0.0229	NS	–	NS	NS	NS	0.0492
HL (Cr)	0.0306	NS	NS	–	NS	NS	NS
HL (Cr)+MA	0.0013	NS	NS	NS	–	NS	0.0032
HL (Inj)+MA	0.0029	NS	NS	NS	NS	–	0.0067
Cr	NS	0.0207	0.0492	NS	0.0032	0.0067	–

NS: Non significant