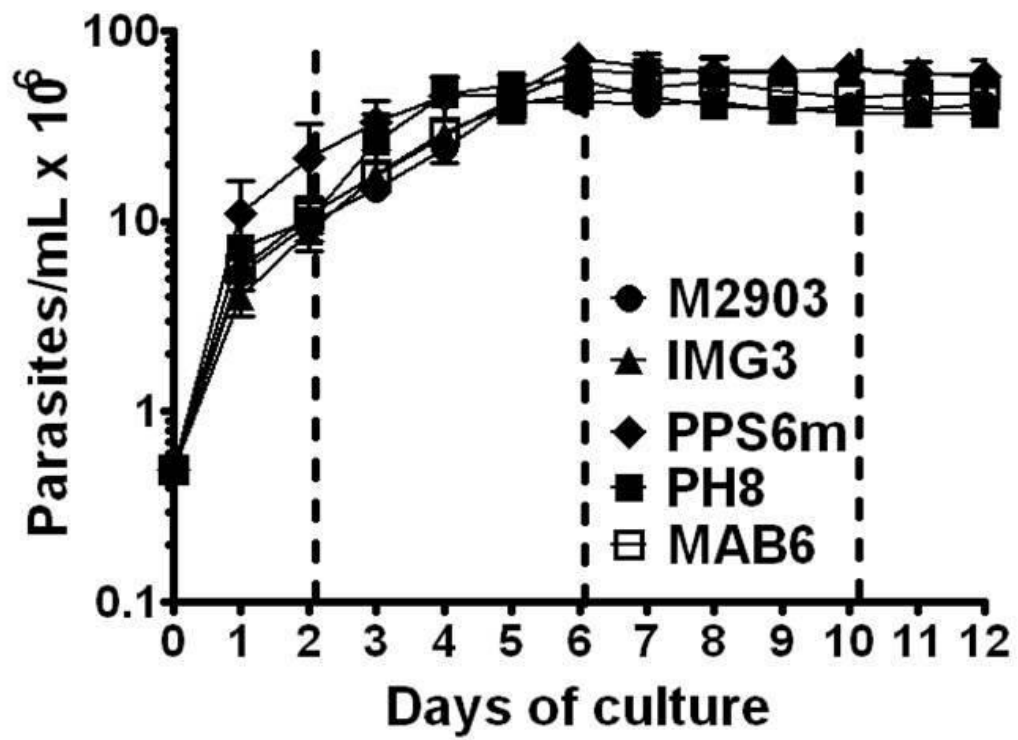
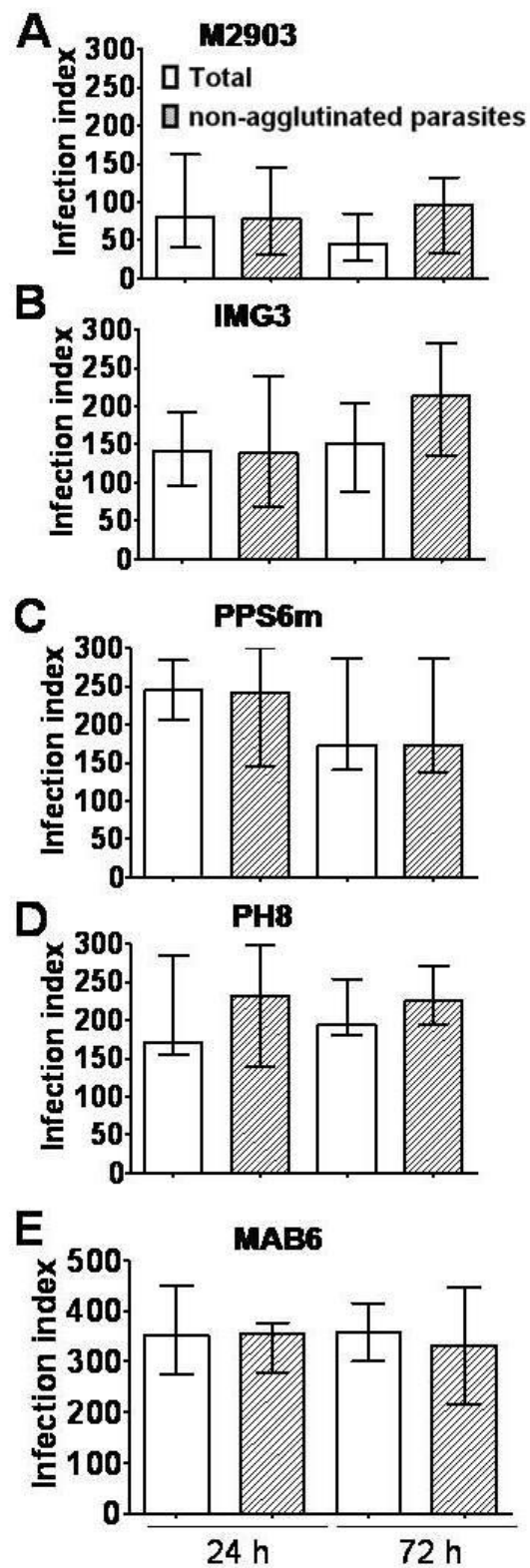


Supplementary Figure 1



Supplementary Figure 2



Supplementary Table 1. Morphometry of *L. braziliensis* and *L. amazonensis* promastigotes isolates during *in vitro* growth^a.

<i>Leishmania</i> Isolate	Day of culture	Length of the cell body (μm)	Width of the cell body (μm)	Length of the flagellum (μm)
M2903	2	7.10 ± 0.15	2.23 ± 0.06	8.47 ± 0.23
	6	3.89 ± 0.14*	1.98 ± 0.07	11.03 ± 0.30*
	10	4.53 ± 0.17*	1.84 ± 0.05	12.08 ± 0.37*
IMG3	2	7.06 ± 0.15	1.94 ± 0.05	7.24 ± 0.23
	6	3.71 ± 0.61*	1.97 ± 0.06	12.20 ± 0.34*
	10	3.62 ± 0.13*	1.54 ± 0.06	12.38 ± 0.36*
PPS6m	2	7.57 ± 0.09	2.48 ± 0.04	8.94 ± 0.13
	6	3.97 ± 0.06*	2.34 ± 0.04	12.60 ± 0.16*
	10	4.30 ± 0.08*	2.44 ± 0.04	13.74 ± 0.17*
PH8	2	14.74 ± 0.22	2.46 ± 0.07	13.44 ± 0.27
	6	10.62 ± 0.25*	2.66 ± 0.06	20.41 ± 0.40*
	10	8.71 ± 0.16*	2.56 ± 0.06	19.33 ± 0.36*
MAB6	2	11.90 ± 0.20	2.68 ± 0.05	11.06 ± 0.21
	6	7.64 ± 0.16*	2.55 ± 0.07	15.34 ± 0.27*
	10	7.22 ± 0.13*	2.41 ± 0.05	15.43 ± 0.23*

^aParasites of *L. (Viannia) braziliensis*: (IMG3, PPS6m, M2903) and *L. amazonensis* (MAB6 and PH8) were cultured in Grace's insect medium and after 2, 6 or 10 days parasites were fixed, stained and examined by light microscopy (1000x) and further analyzed using the software Image J. The values represent mean ± EPM of measurements. * P < 0.05 (2nd vs 6th day; 2nd vs 10th day); n = 300 parasites/day.

Supplementary Table 2. Percentages of metacyclic forms detected by morphometry, flow cytometry, lectin/antibody selection and complement resistance.

Isolate Day of culture	% of metacyclic forms ^a			
	Morphometry ^b	Citometry ^c	Lectin/Antibody ^d	Complement resistance ^e
M2903^f – 2nd Day	22 [16-25]	24 [16-26]	44 [39-49]	28 [22-40]
IMG3^g – 2nd Day	14 [13-25]	23 [21-28]	20 [11-24]	30 [22-31]
PPS6m^h – 2nd Day	10 [08-12]	09 [07-21]	30 [26-36]	15 [10-20]#
PH8ⁱ – 2nd Day	07 [04-13]	22 [18-26]	08 [07-10]	30 [28-42]
MAB6^j – 2nd Day	08 [03-12]	16 [08-29]	13 [09-19]	33 [27-37]
M2903 – 6th Day	86 [83-89]	72 [47-80]	78 [76-87]	71 [64-83]
IMG3 – 6th Day	85 [75-91]	41 [30-60]	69 [67-72]	64 [56-66]
PPS6m – 6th Day	72 [25-71]	49 [40-77]	76 [75-80]	39 [35-50] #
PH8 – 6th Day	38 [35-40]	59 [54-69]	66 [48-85]	69 [60-77]
MAB6 – 6th Day	47 [45-50]	79 [68-80]	84 [80-92]	58 [58-62]
M2903 – 10th Day	85 [82-88]	69 [59-84]	89 [82-90]	86 [78-86]
IMG3 – 10th Day	91 [87-95]	72 [43-78]	87 [79-92]	77 [63-80]
PPS6m – 10th Day	95 [93-97]	50 [40-71]	73 [68-91]	81 [64-84]
PH8 – 10th Day	61 [58-64]	76 [69-83]	79 [74-83]	76 [72-81]
MAB3 – 10th Day	57 [55-60]	80 [78-89]	81 [67-90]	67 [66-82]

^aMedian [range]; ^bparasites that exhibited flagellum/cell body size ratio ≥ 2 , ^cparasites FCS^{low}; ^dnegatively selected parasites by BPL (*L. (V) braziliensis*) or 3A1-La antibody (*L. amazonensis*); ^eviable parasites after incubation with 10% rabbit serum; ^freference strain of *L. braziliensis*; ^gClinical isolate of *L. braziliensis* (LCL); ^hClinical isolate of *L. braziliensis* (ML); ⁱReference strain of *L. amazonensis*; ^jClinical isolate of *L. amazonensis* (DCL). #P < 0.05 (PPS6m vs all isolates)