

VI Congresso Internacional de Corrida- 2015

Avaliação Fisiológica – Controlo de Treino

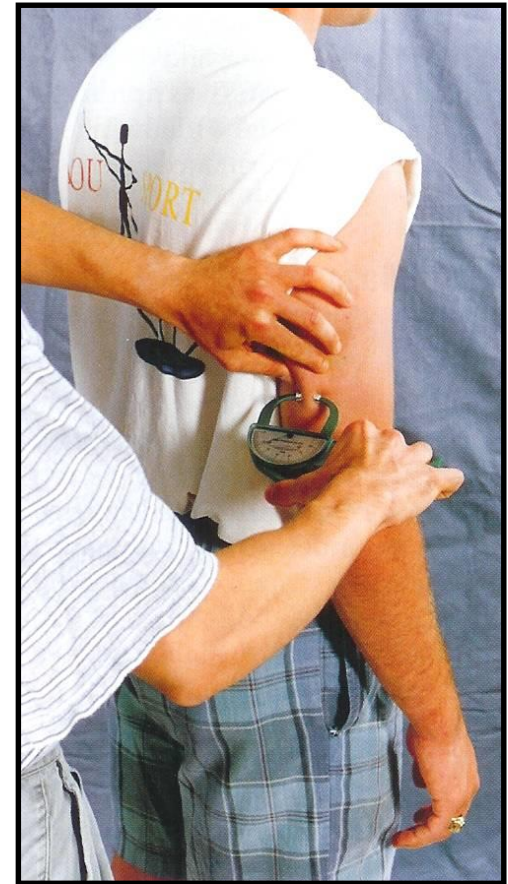
Amândio Manuel Cupido dos Santos

acupidosantos@gmail.com

FCDEF-UC



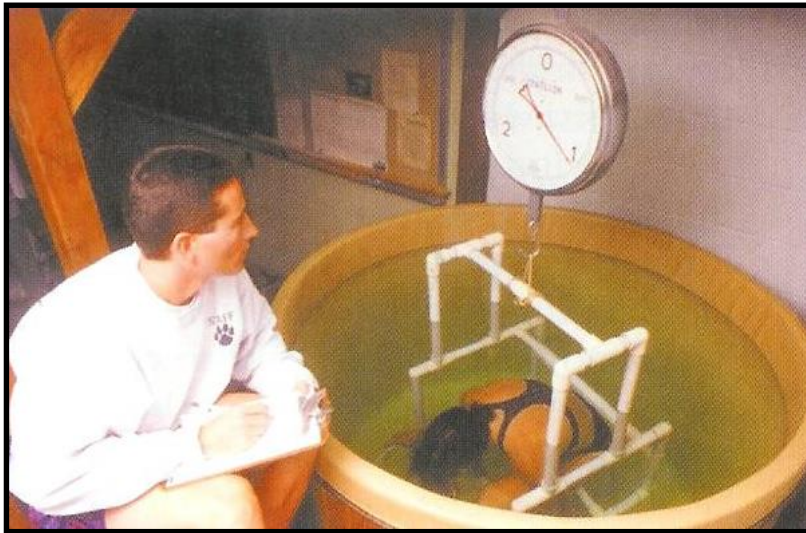
Morfologica



Avaliação da composição corporal

■ Densitometria

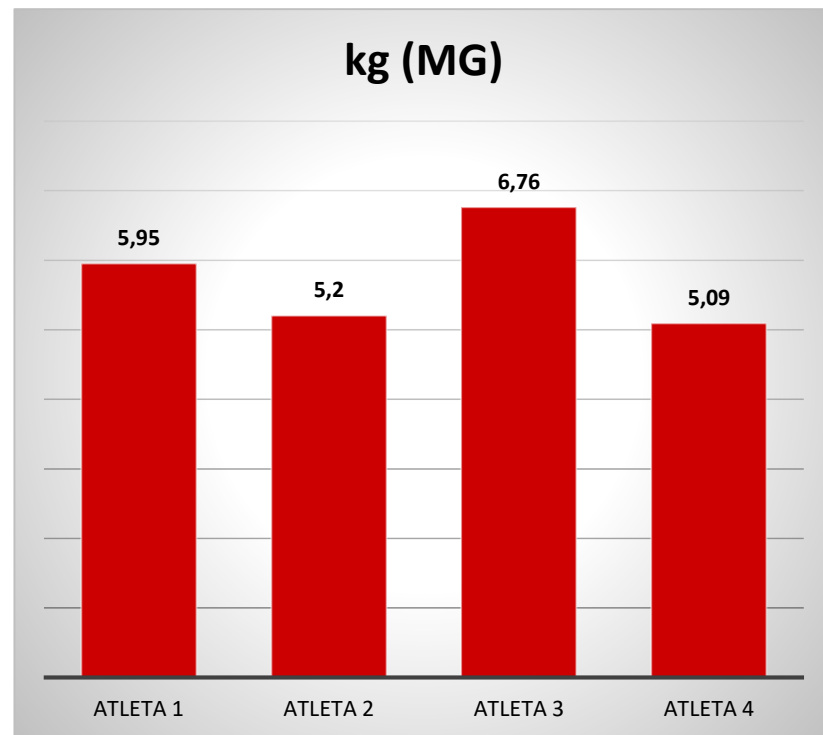
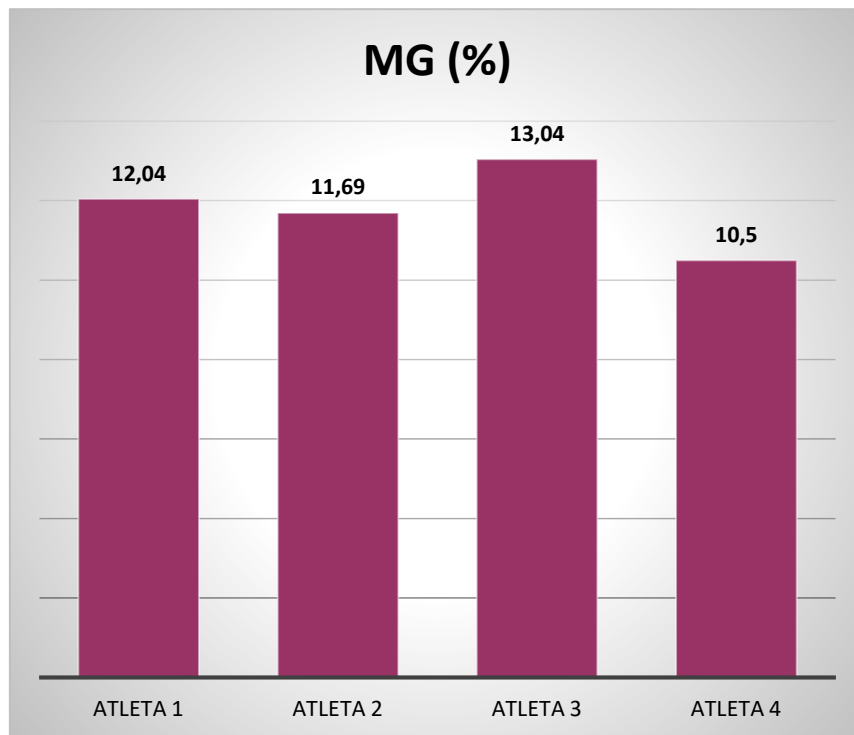
Pesagem hidrostática



Pletismografia por ar

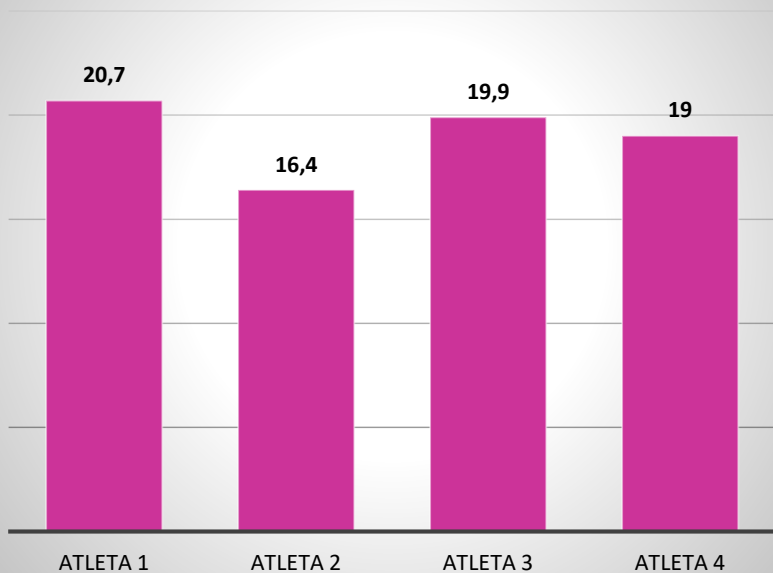


Atletas femininas

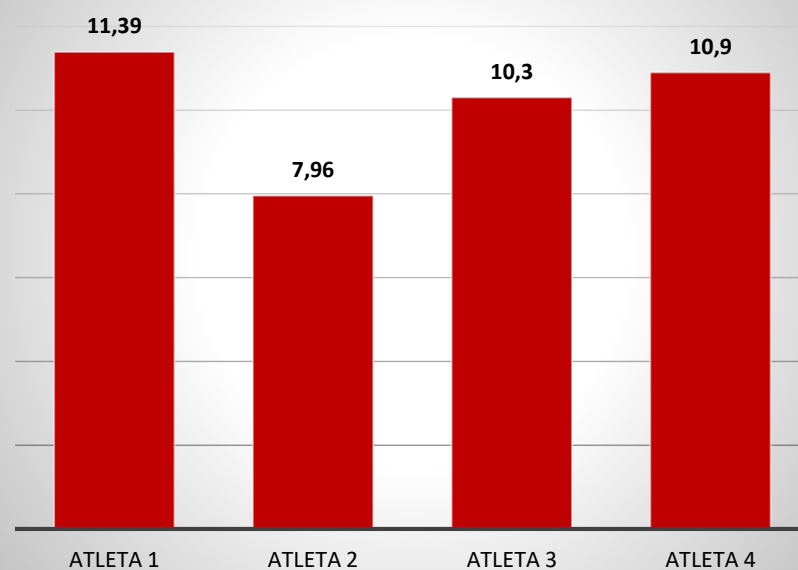


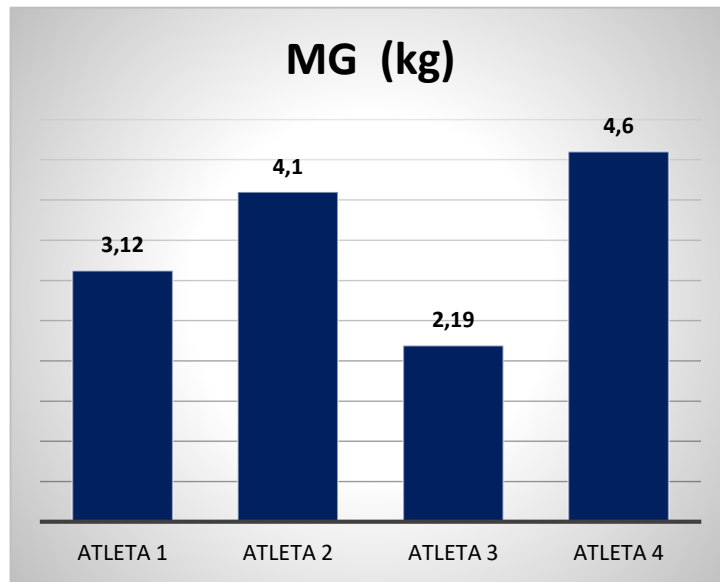
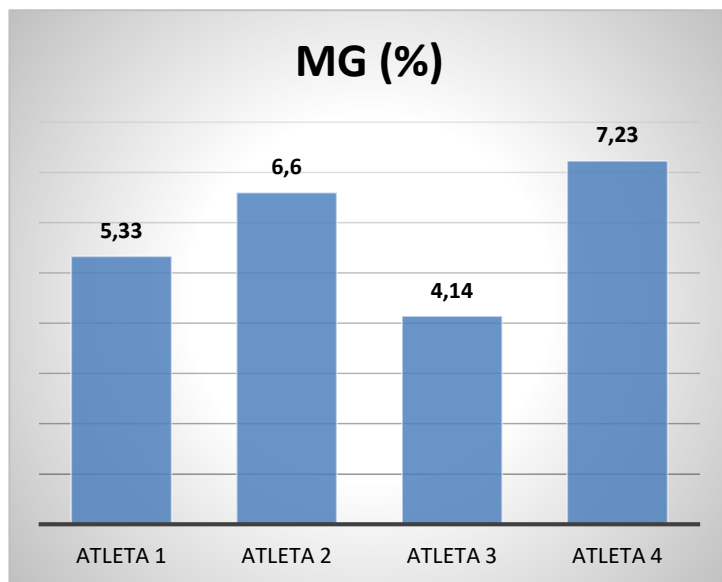
Atletas femininas

MG (%)



kg (MG)





Ex:

Massa Corporal = 57kg e

Vo2 max = 3,6 L/min

Vo2 max = 63 ml/kg/min

Massa Corporal = 50kg e

Vo2 max = 3,6 L/min

Vo2 max = 72 ml/kg/min

Força Muscular



Avaliação Cardio-respiratória

Consumo Máximo de O_2



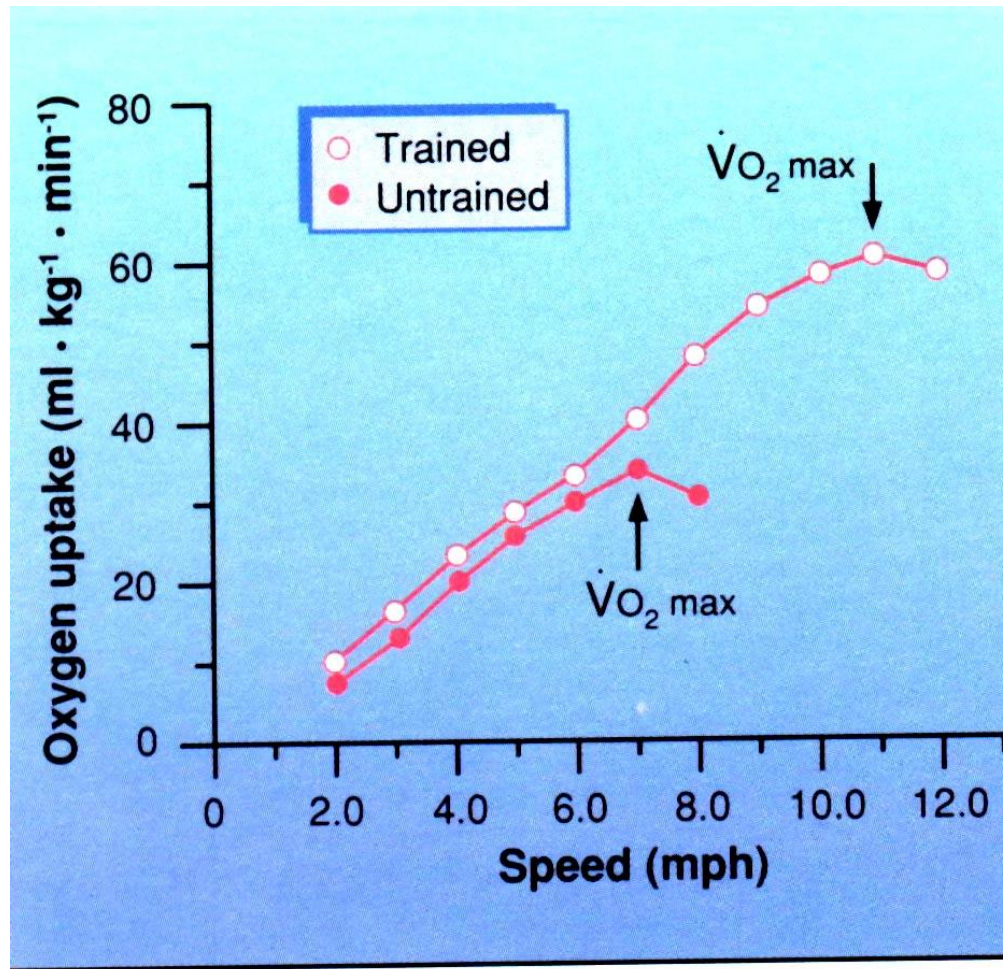
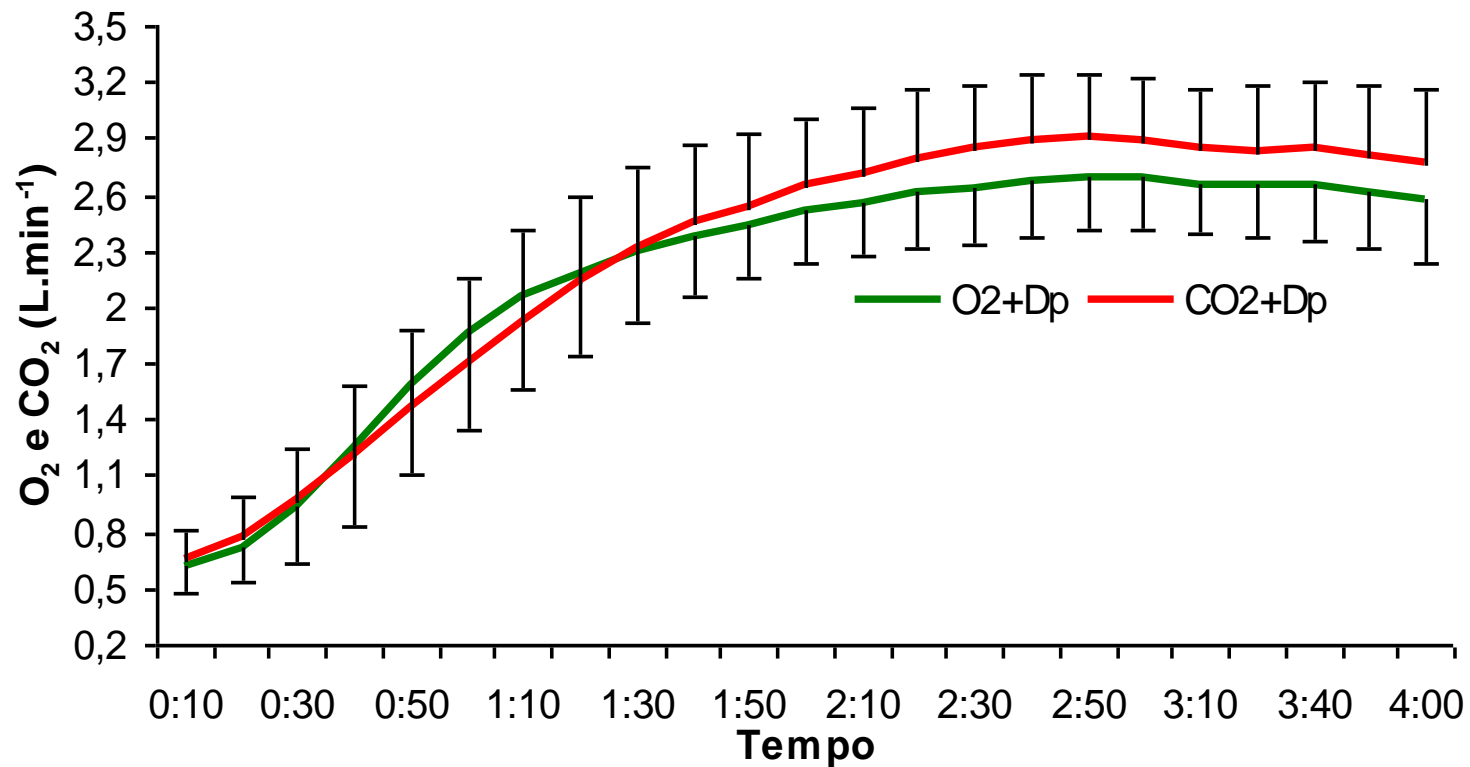


Figure 5.14 The relationship between exercise intensity (speed) and oxygen uptake, illustrating $\dot{V}\text{O}_2 \text{ max}$ in trained and untrained men.

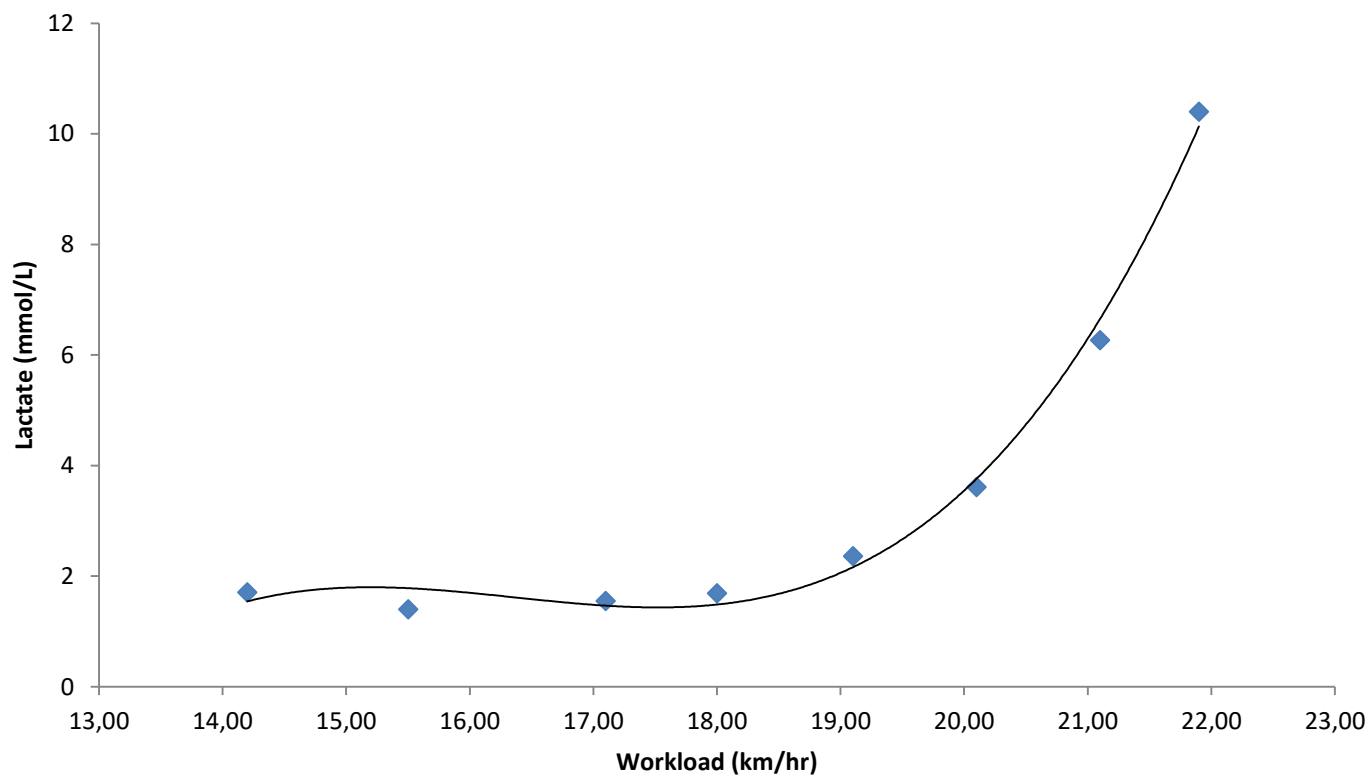
Relação entre o consumo de O₂ e a liberação de CO₂



Limiar Anaeróbico





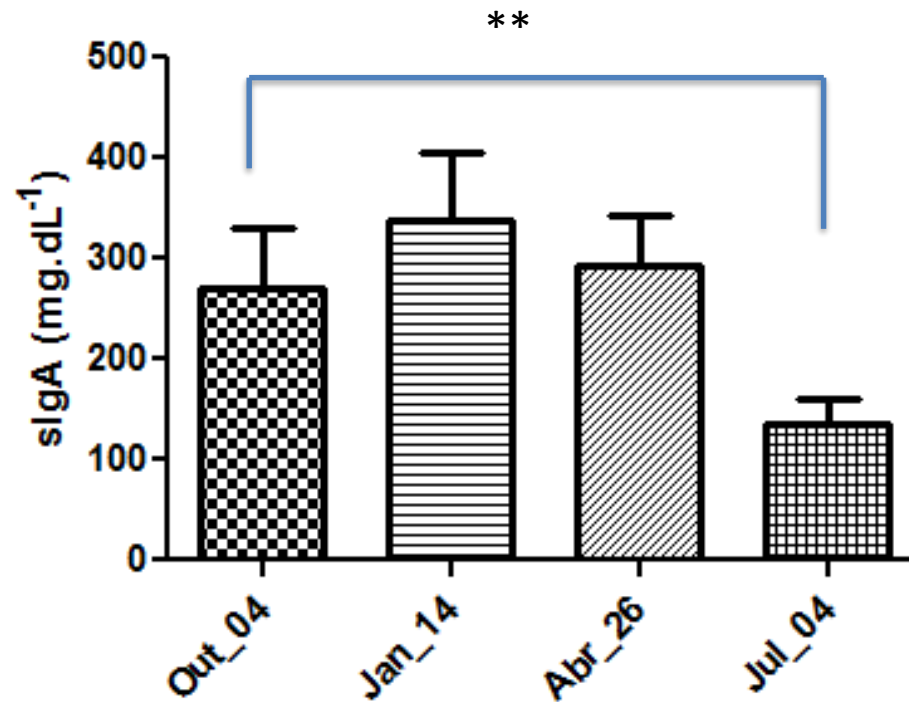


Análises Sanguíneas

Data			10/mar	07/abr	28/abr
Hemograma	Valor de Referência		Resultado	Resultado	Resultado
Eritrograma					
Eritrocitos	3,80 - 5,80	10>12/L	4,14	4,17	4,32
Hemoglobina	11,5 - 16,5	g/dL	12,5	12,6	12,8
Hematocrito	37,0 - 47,0	%	36,6	36,4	37,9
V.G.M.	83,0 - 97,0	fL	88,5	87,3	87,8
H.G.M.	27,0 - 32,0	pg	30,2	30,3	29,7
C.M.H.G	32,0 - 36,0	g/dL	34,1	34,7	33,8
R.D.W.	<14,9	%	12,5	12,4	12,7
Leucograma					
contagem de leucocitos	4,0-11,0	x10>9/L	6,6	5,8	6,2
neutrofilos	2,1 -7,6	x10>9/L	45,4	45,4	43,3
Eosinofilos	<0,2	x10>9/L	1,9	1,3	1,5
Basofilos	<0,2	x10>9/L	0,6	0,6	0,3
Linfocitos	1,0 - 4,2	x10>9/L	44,5	45,4	48,7
Monocitos	0,1 -1,2	x10>9/L	7,6	7,3	6,2
Plaquetas					
Plaquetas	150 - 380	x10>9/µl	202	196	176
MPV			10	9	10
Ferritina	10-120	ug/L	81	70	71
Bioquímica					
Glicose	74 - 106	mg/dL	87	83	64
Ureia	17-43	mg/dL	24	27	24
Azoto Ureico	8 - 20	mg/dL	11	13	11
Creatinina	0,7 - 1,1	mg/dL	1, 0	1, 0	1
Acido úrico	2,6 -6,0	mg/dL	4,6	5	5,3
Ferro total	60 -180	ug/dL	156	122	136
Colesterol Total	<190	mg/dL	125	123	119
colesterol das HDL	Aconcelhavel >60	mg/dL	57	48	54
Índice Aterogenico	<5,00		2,19	2,56	2,2
Trigliceridos	<150	mg/dL	55	69	51
Ionograma Sérico					
Sodio	135 - 148	mEq/L	144	143	143
Potassio	3,5 -5,3	mEq/L	4,3	4,4	3,6
Cloro	98 -107	mEq/L	101	101	103
Calcio	8,8 - 10,6	mg/dL	9, 0	9, 0	8,9
Magnesio	1,9 -2,5	mg/dL	2,3	2,5	2,5
Creatina Quinase (CK)	<145	ug/L	192	124	183
TGO/AST	<31	ug/L	26	25	27
TGP/ALT	<34	ug/L	13	12	13
GGT	<38	ug/L	13	12	14
Endocrinologia					
cortisol	8,7 -22,4	ug/dL	24,0	26,3	27,3
testosterona Total	0,10 - 0,90	ng/ mL	0,2	0,2	0,08

Controlo da IgA salivar

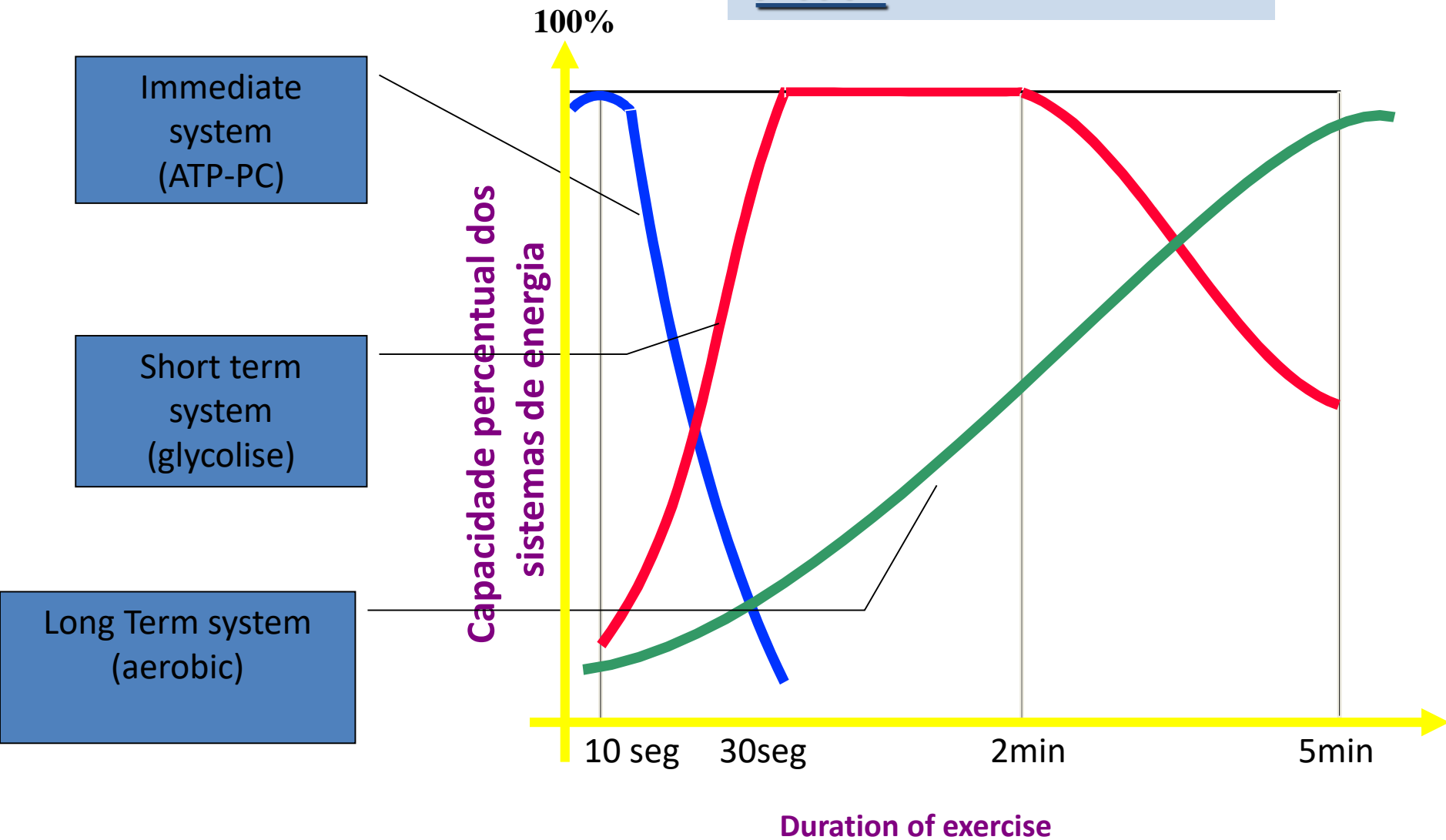
Controlo da *IgA* salivar



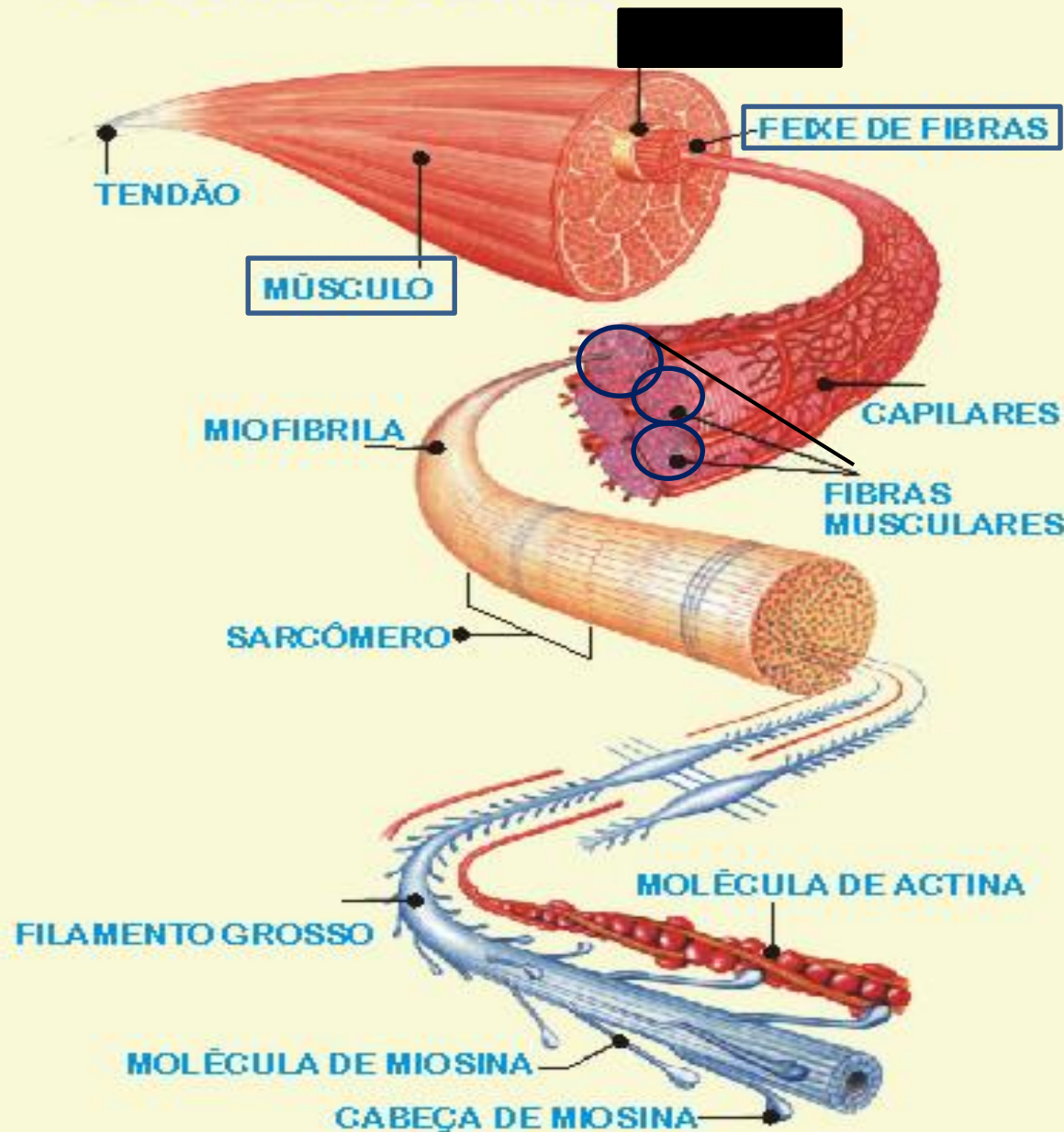
	Out	Jan	Abr	Jul
Minimum	123	38	72	54
Median	214	282	266	118
Maximum	608	630	491	259
Mean	271	339	292	137
Std. Deviation	177	202	155	75
Std. Error	59	67	52	25
Lower 95% CI	136	184	173	79
Upper 95% CI	407	494	411	194

Vias Energéticas

ATP



FIBRAS MUSCULARES



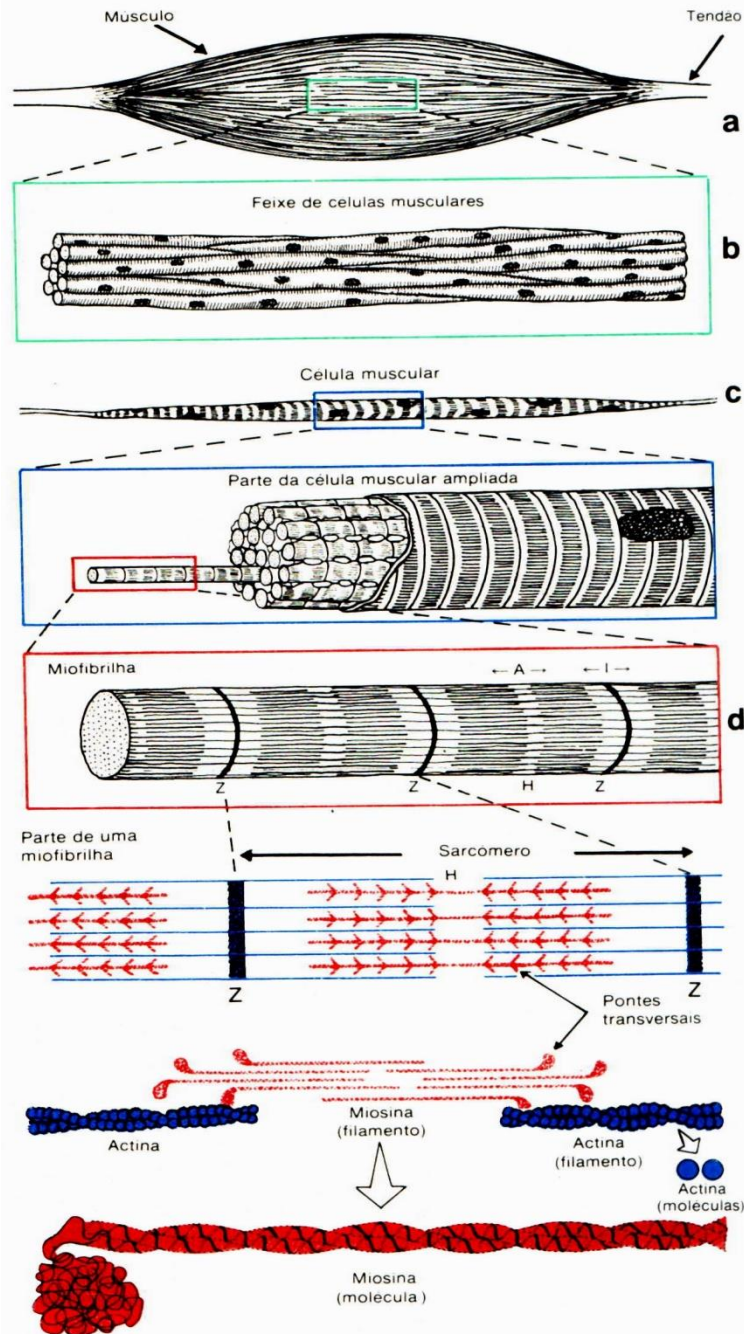
- **FIBRA MUSCULAR:** célula alongada especializada na contração (**função elástica**)



Contém 1 milhão de **MIOFIBRILHAS** (feixes de proteínas)

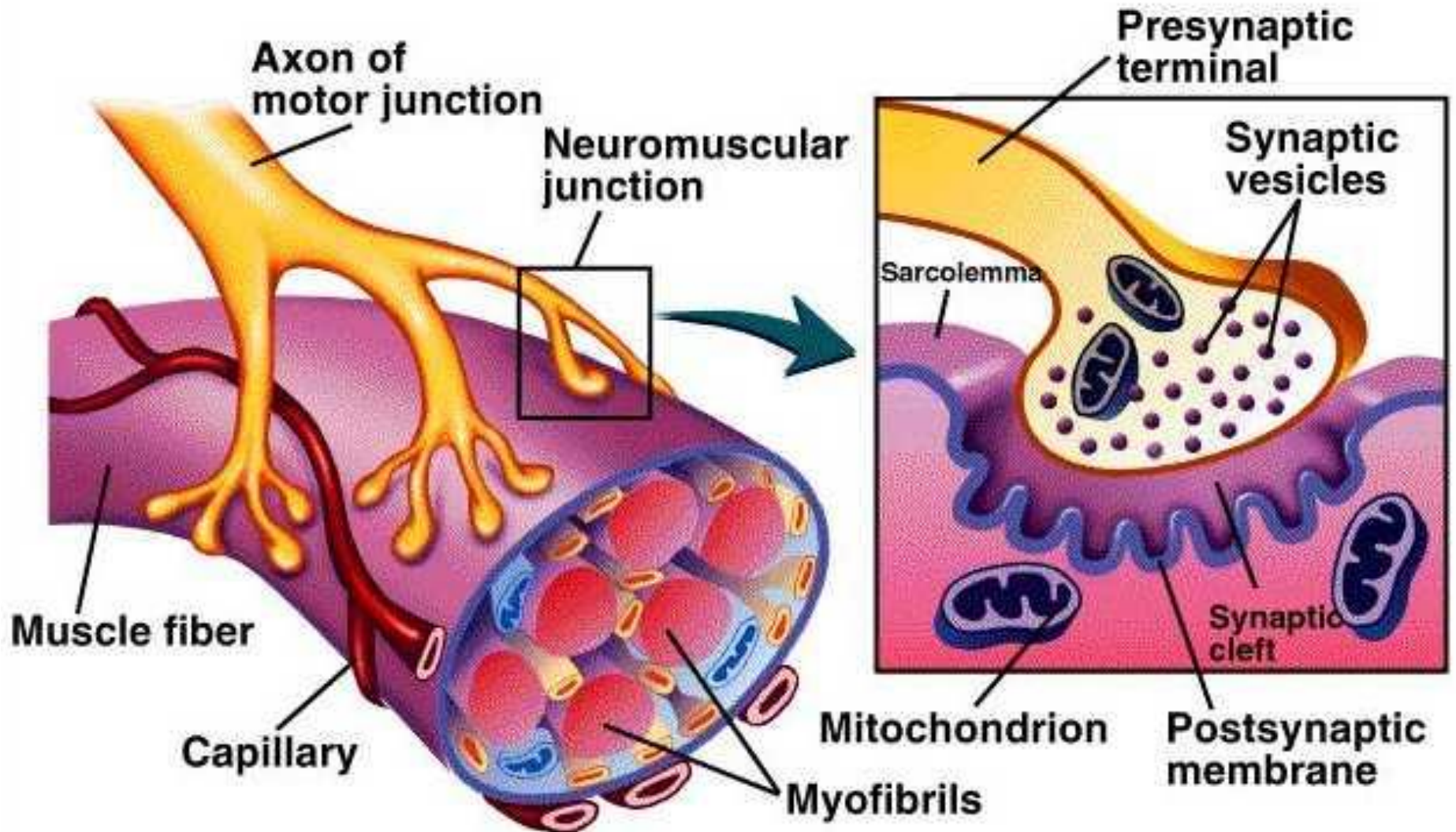


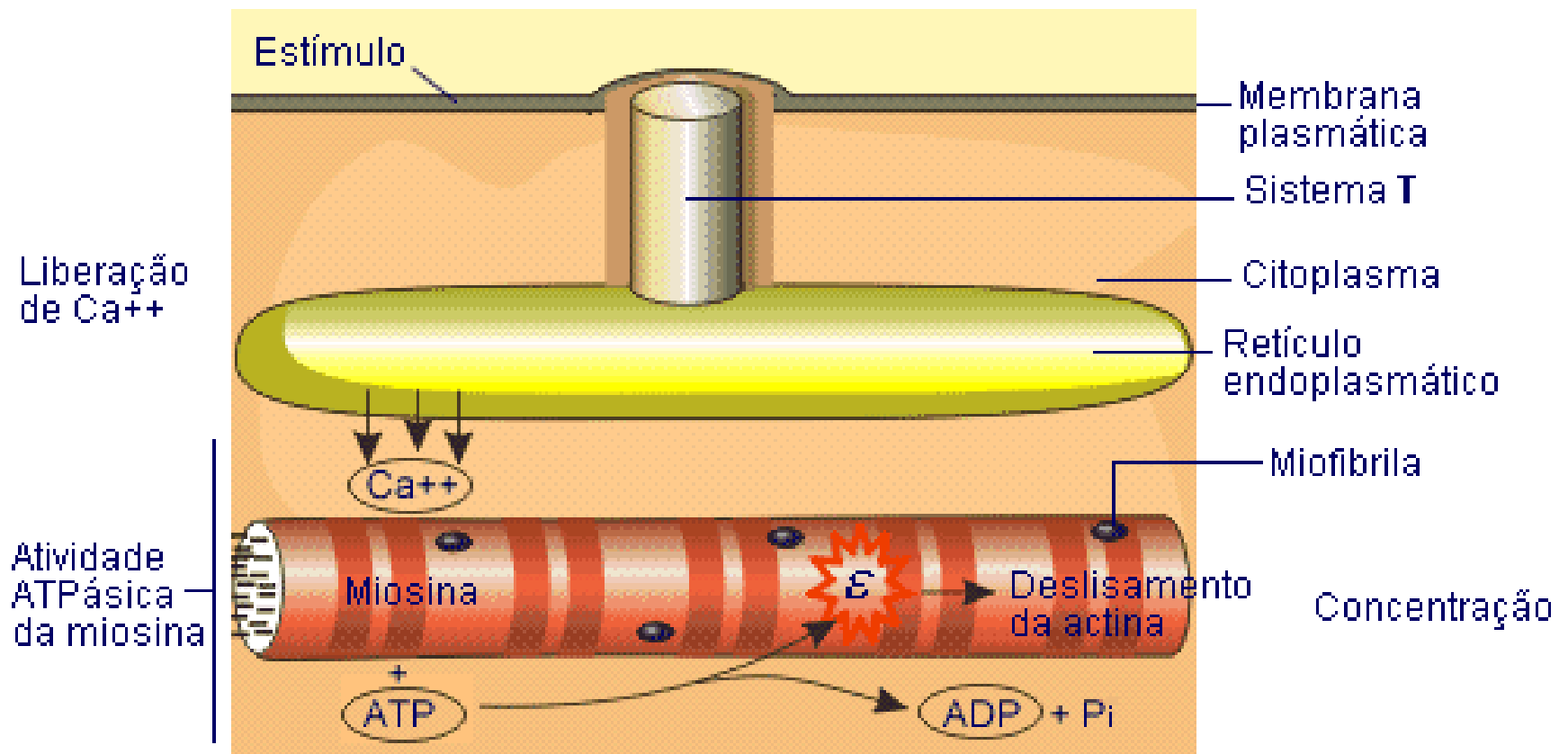
PRINCIPAIS ESTRUTURAS INTRACELULARES, OCUPANDO QUASE TODO O VOLUME DA CÉLULA.



contração muscular

Neuromuscular Junction

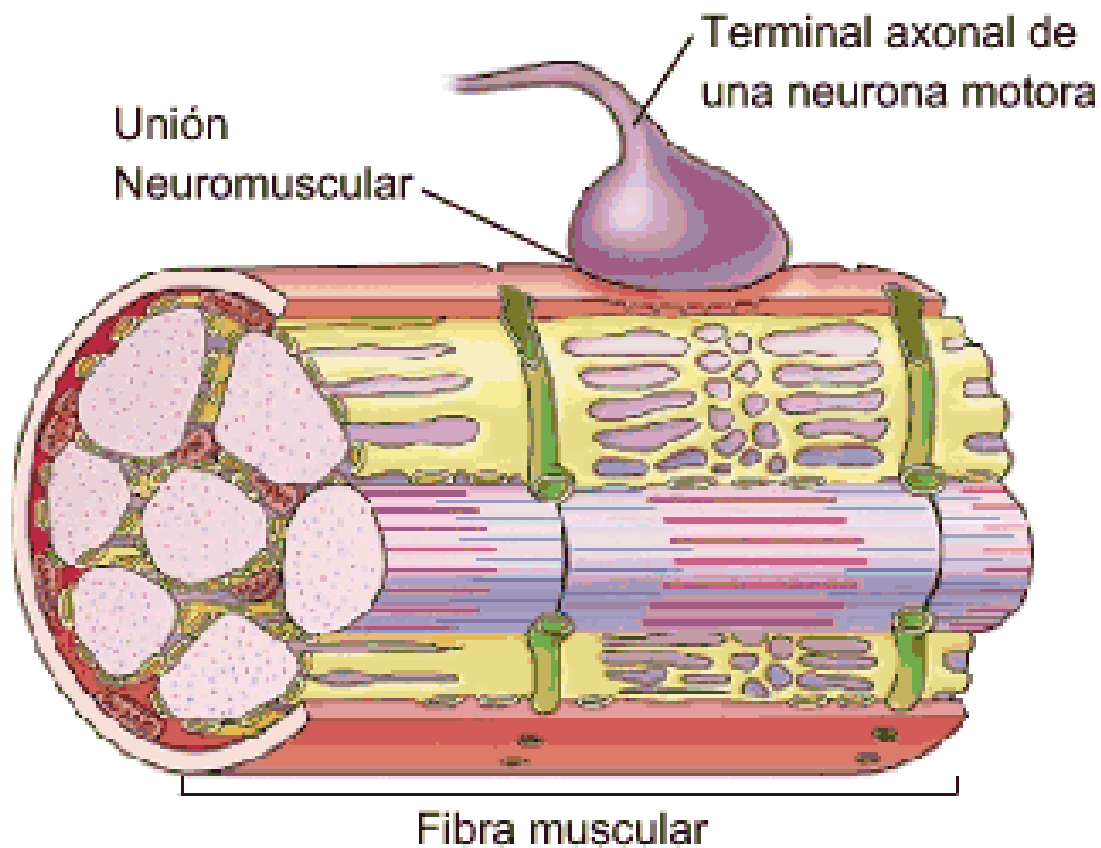




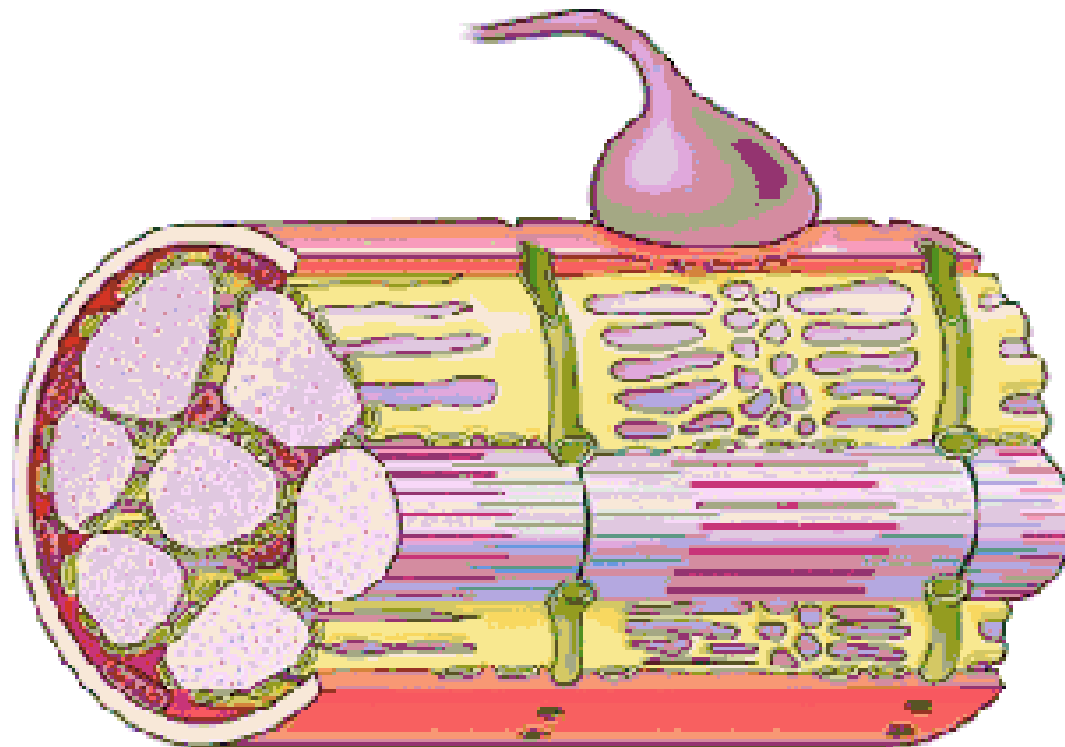
A química da contração



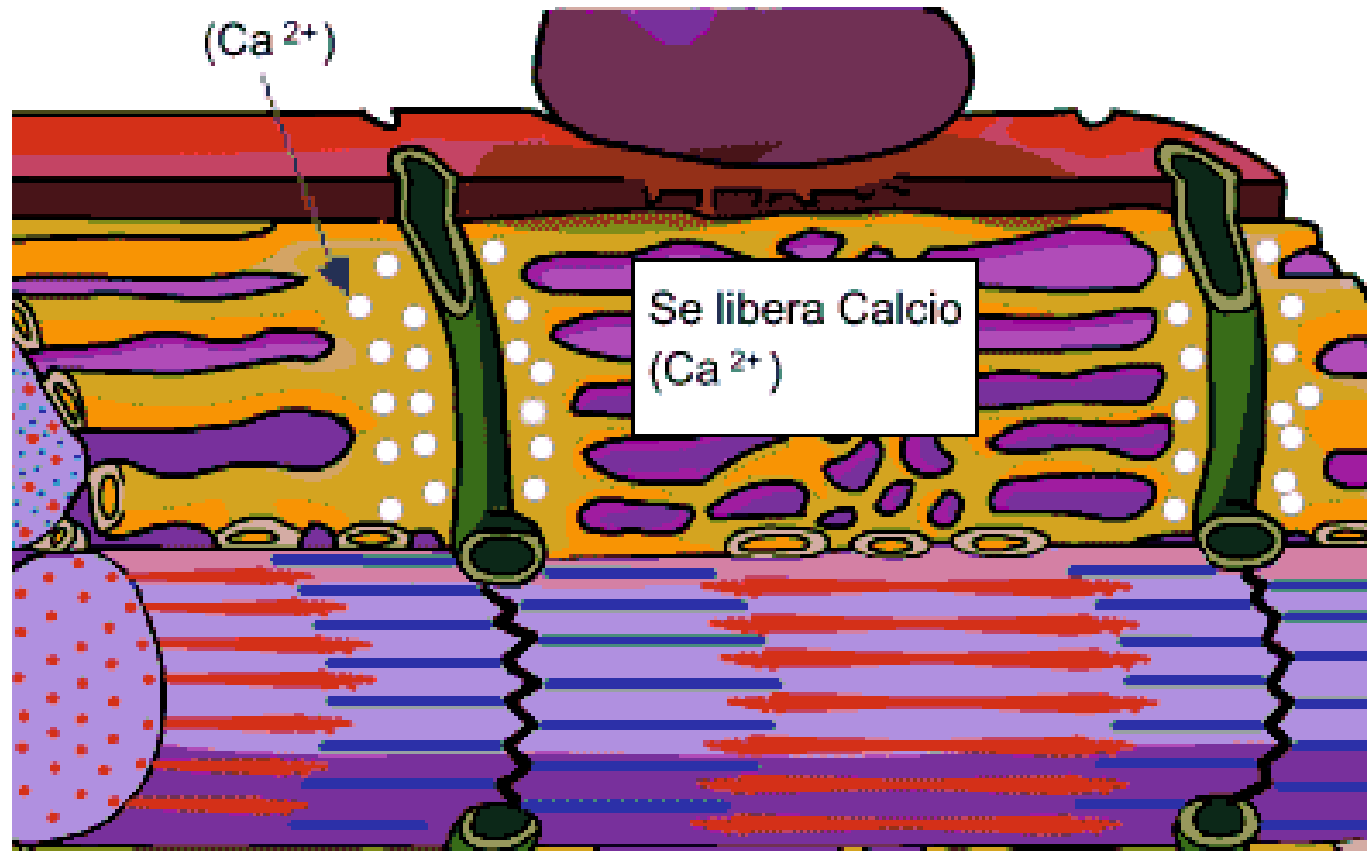
Mecanismo molecular de la contracción neuromuscular



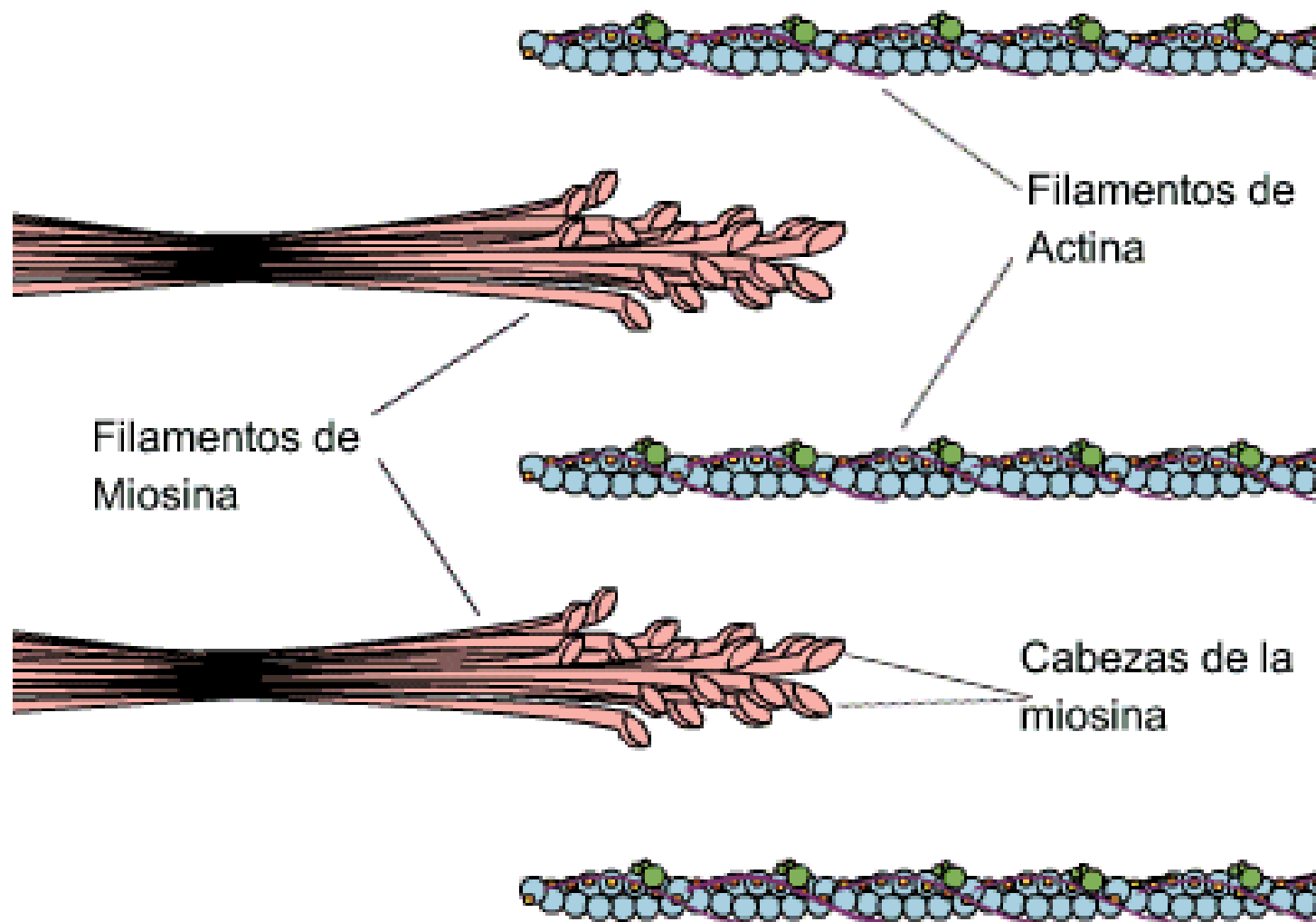
Mecanismo molecular de la contracción neuromuscular

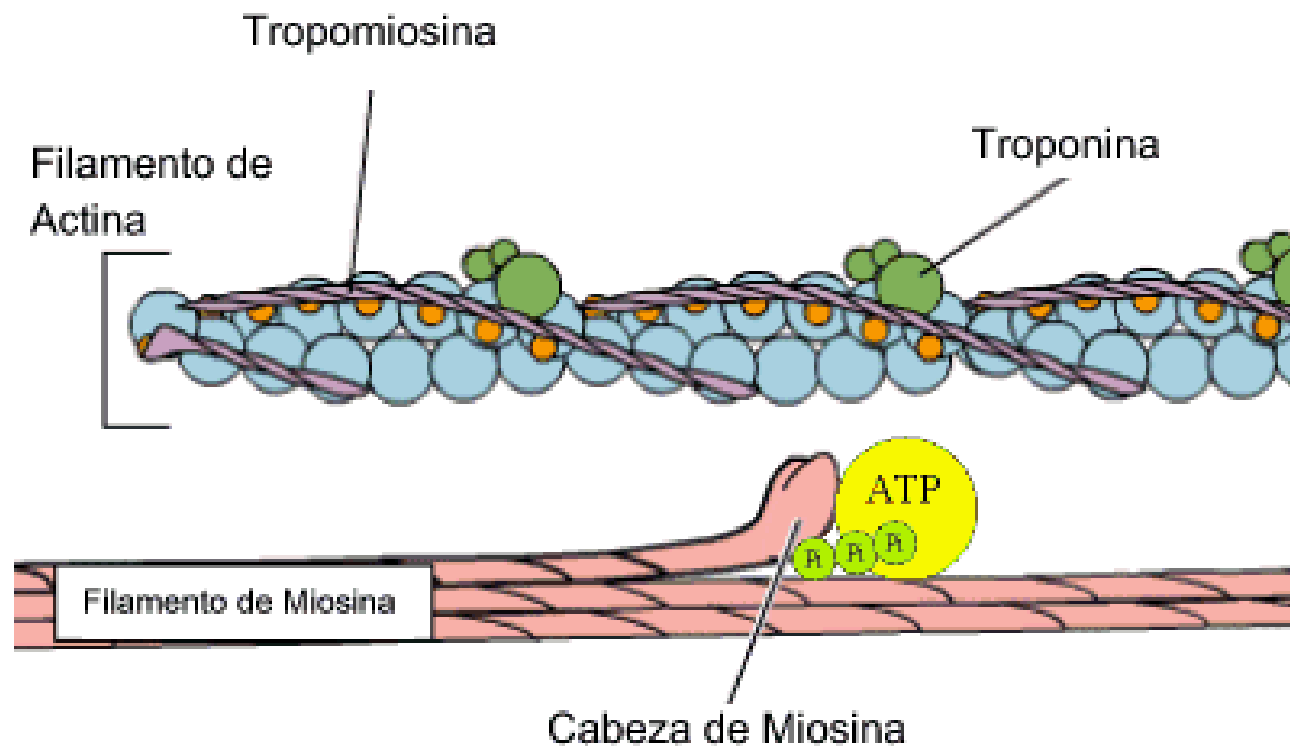


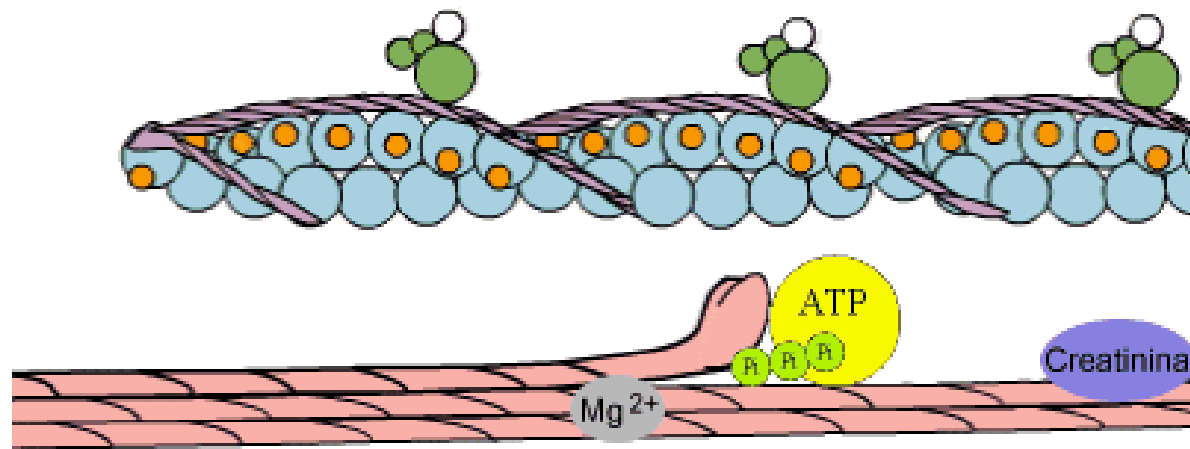
Mecanismo molecular de la contracción neuromuscular



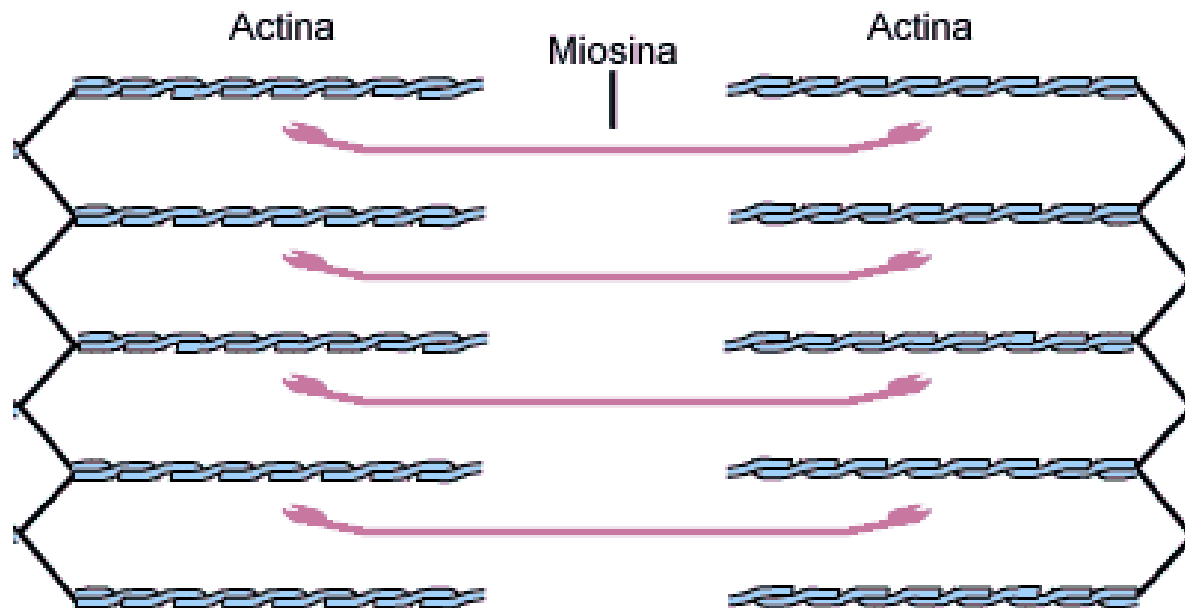
<http://www.postpoliomexico.org/CPK/LaCPK.htm>

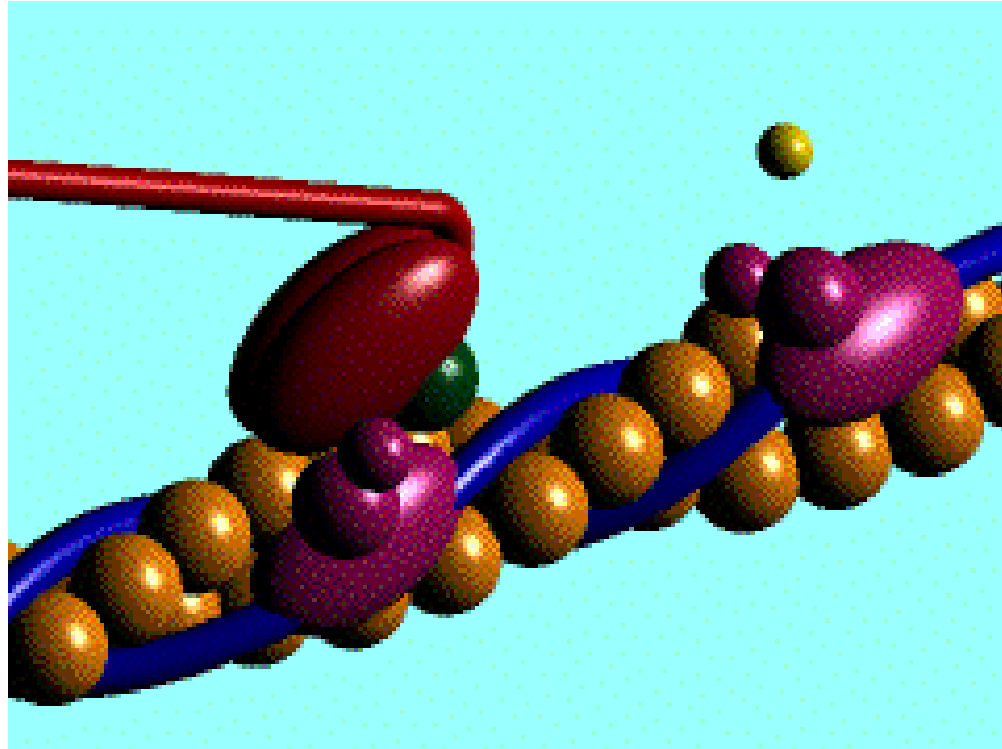






Contracción - Relajación





Aplicabilidade Prática deste conhecimento

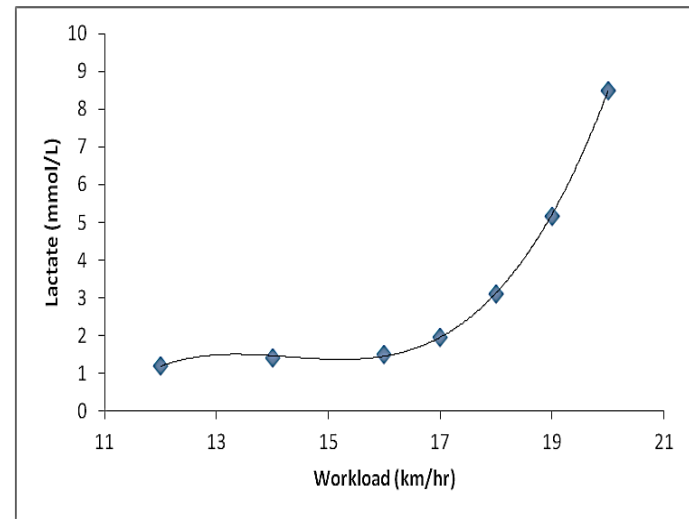
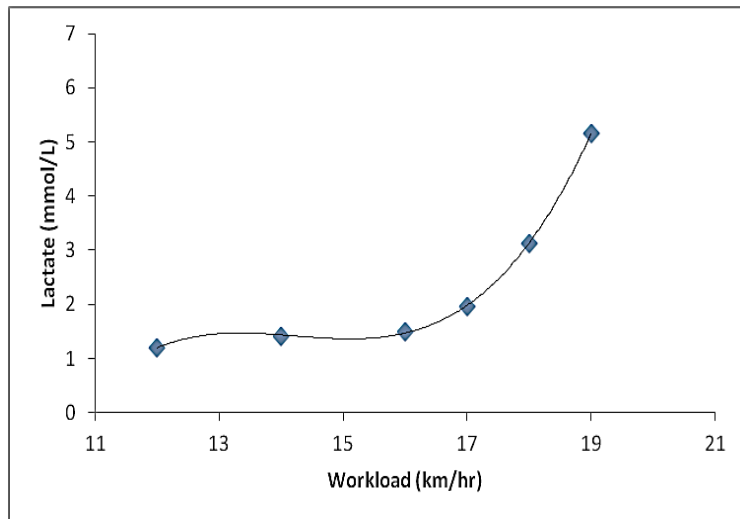


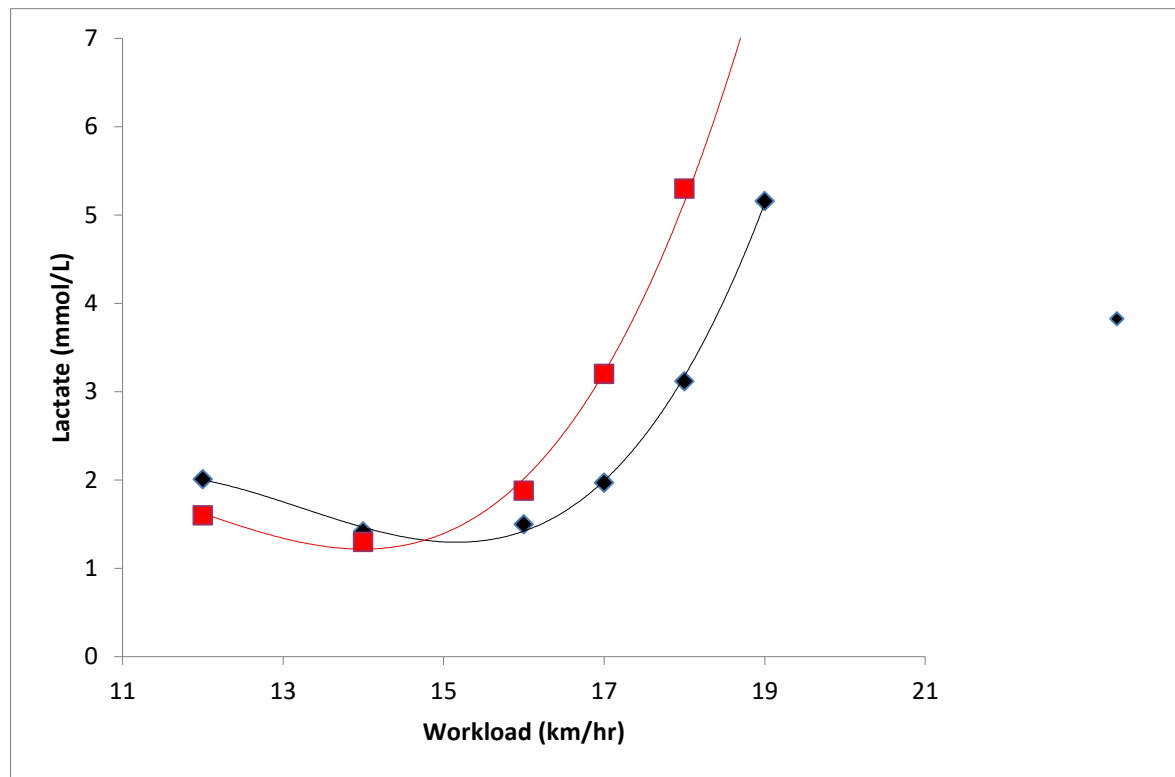
Jessica Augusto

1º Place: 2:23:07 - Gold Medal (Etiopie Tiki Gelena)

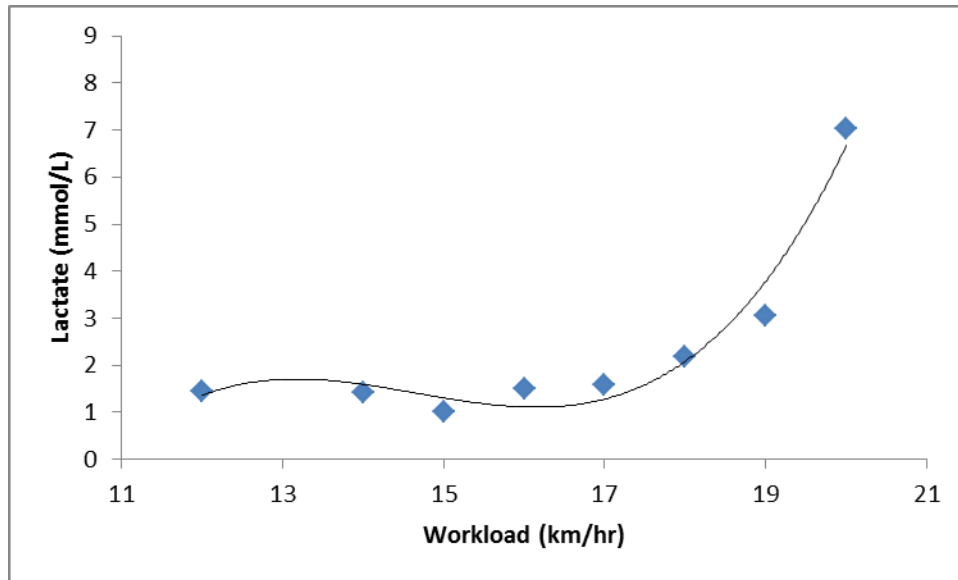
0:02:03

7º Place: 2:25:11 – Olimpico diplom (Portuguese Jessica)







3-04-2014



3:25 - 17,5




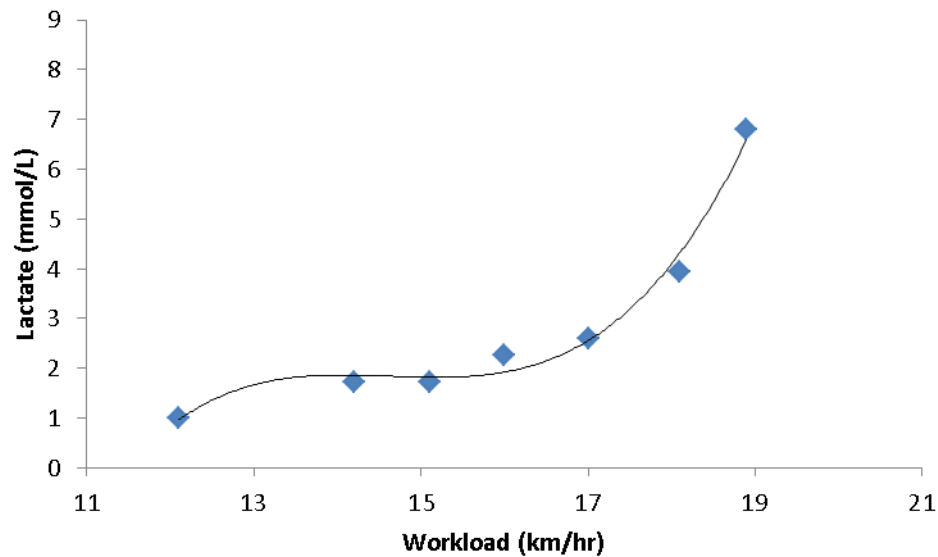
CONGRATULATIONS






JESSICA AUGUSTO

02_H : 24_M : 25_S






3:27 – 17,4




CONGRATULATIONS

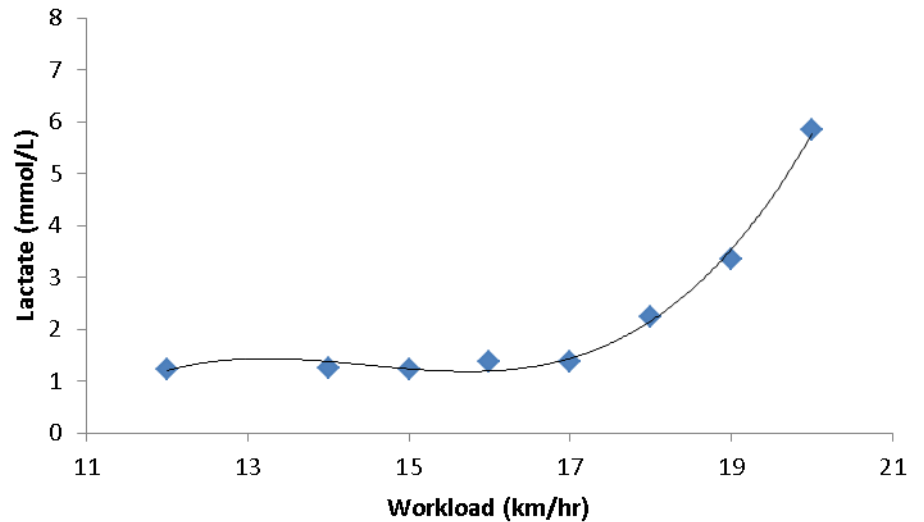


ANA DULCE FELIX

02_H : 25_M : 15_S



Split	Time Of Day	Time	Diff	min/km	km/h	
5K	09:37:06	00:17:05	17:05	03:25	17.56	
10K	09:54:13	00:34:13	17:08	03:26	17.52	
15K	10:11:21	00:51:21	17:08	03:26	17.51	
20K	10:28:27	01:08:26	17:05	03:26	17.55	
HALF	10:32:13	01:12:12	03:46	03:27	17.44	
25K	10:45:32	01:25:31	13:19	03:25	17.60	
30K	11:02:36	01:42:36	17:05	03:25	17.56	
35K	11:20:00	02:00:00	17:24	03:29	17.24	
40K	11:37:27	02:17:27	17:27	03:30	17.19	
FINISH	11:45:16	02:25:15	07:48	03:34	16.86	8



DIPLOMA

RUNCZECH

VOLKSWAGEN PRAGUE MARATHON 3 MAY 2015



SARA MOREIRA

Start # F21

Time: 02:24:49
real time: 02:24:47

Check	Time	Delta	Rank	Cat. AMF
5K	00:17:11	00:17:11	29 ^a	2 ^o
10K	00:34:08	00:16:57	30 ^a	2 ^o
15K	00:51:19	00:17:10	•	•
20K	01:08:28	00:17:09	•	•
Half Marathon	01:12:15	00:03:46	•	•
25K	01:25:40	00:13:24	•	•
30K	01:42:53	00:17:13	•	•
35K	01:59:57	00:17:03	•	•
40K	02:17:09	00:17:11	•	•
Finish	02:24:49	00:07:39	•	•

Title partner

Think Blue.



Main partners



MATON

SPORTS



Official partners



Official media partners



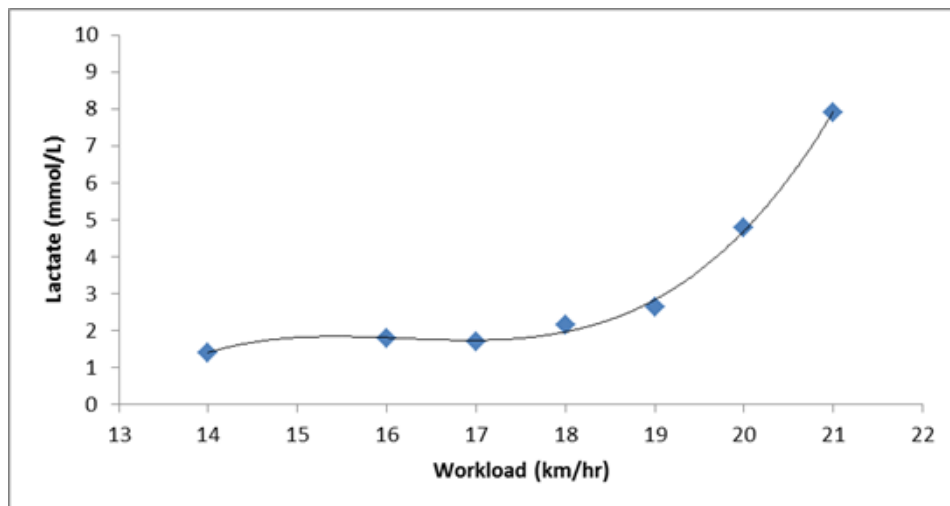
Patrons



Maratona de Praga 3-5-2015
Record Pessoal



Distance	Rank	Rank M/W	Rank Cat.	Time	RealTime	Delta	min/Km	
5K	5000	29	2	2	00:17:11	00:17:09		3.26
10K	10000	30	2	2	00:34:08	00:34:06	00:16:57	3.24
15K	15000				00:51:19	00:51:17	00:17:10	3.25
20K	20000				01:08:28	01:08:26	00:17:09	3.25
Half Marathon	21097				01:12:15	01:12:13	00:03:46	3.25
25K	25000				01:25:40	01:25:38	00:13:24	3.25
30K	30000				01:42:53	01:42:52	00:17:13	3.25
35K	35000				01:59:57	01:59:56	00:17:03	3.25
40K	40000				02:17:09	02:17:08	00:17:11	3.25
Finish	42195				02:24:49	02:24:47	00:07:39	3.25



3:11 – 18,8

URKUNDE

Haspa
Marathon
Hamburg



4. Mai 2014

Ricardo Ribas

JG 1977

02:14:37
(Nettozeit)

11. Platz

1. Platz in der Kl. M35

11. Platz nach Geschlecht

Bruttozeit
02:14:37

Zeit pro km
03:11

Geschwindigkeit
18.81 km/h

5 km 00:15:48
10 km 00:31:30
15 km 00:47:11
20 km 01:03:01

25 km 01:18:51
30 km 01:34:55
35 km 01:51:09
40 km 02:07:22

Halb 1: 01:06:31
Halb 2: 01:08:07

Startnummer 15

WWW.HASPA-MARATHON-HAMBURG.DE

29. Haspa Marathon Hamburg

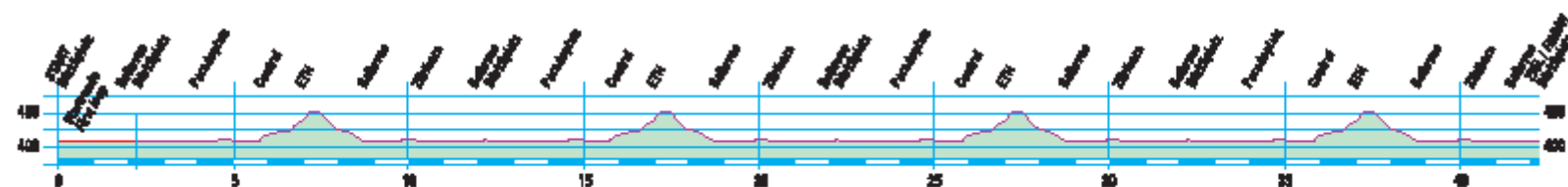
Haspa
Hamburger Sparkasse



Legende

- Starttrunde 2,195km
First loop 2,195km
- Haupttrunde 10km
Main loop 10km
- Drop-off
Pick-up
- Animation
Animation
- Verpflegung
Refreshment
- Wasser/Schwämme
Drinking/Sponging
- Dusche
Mist-Station
- Sanität
Medical Services
- IT
Intermediate Timing
- Toiletten
Toilets
- Bahnhof
Train Station
- MC
Medienzentrum
Media Centre

Höhenprofil Marathon / Altitude profile Marathon



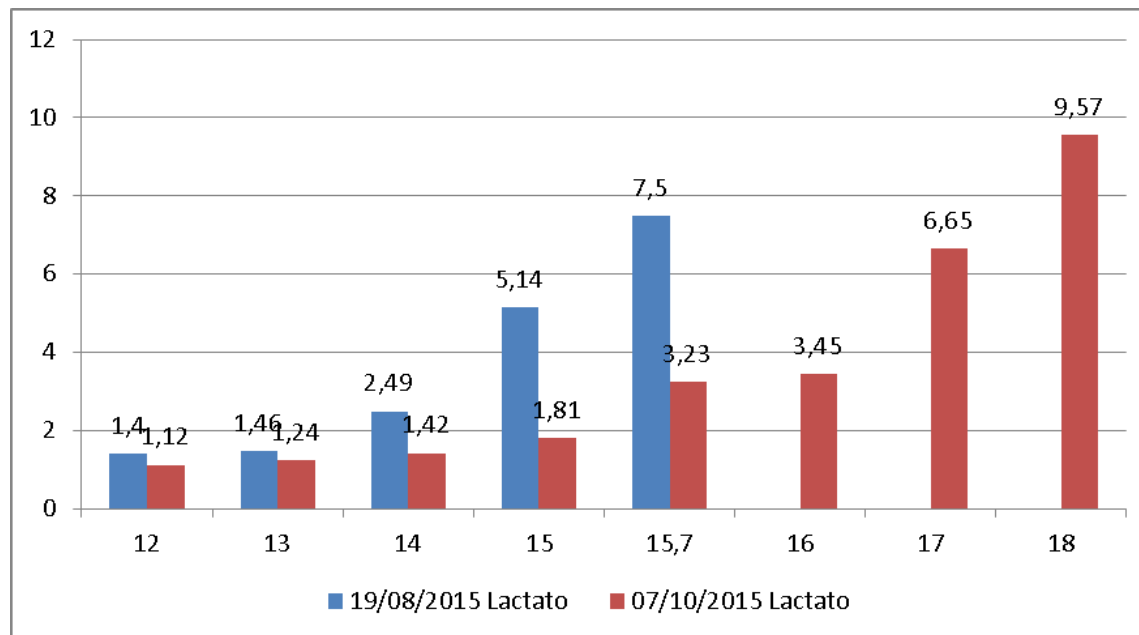
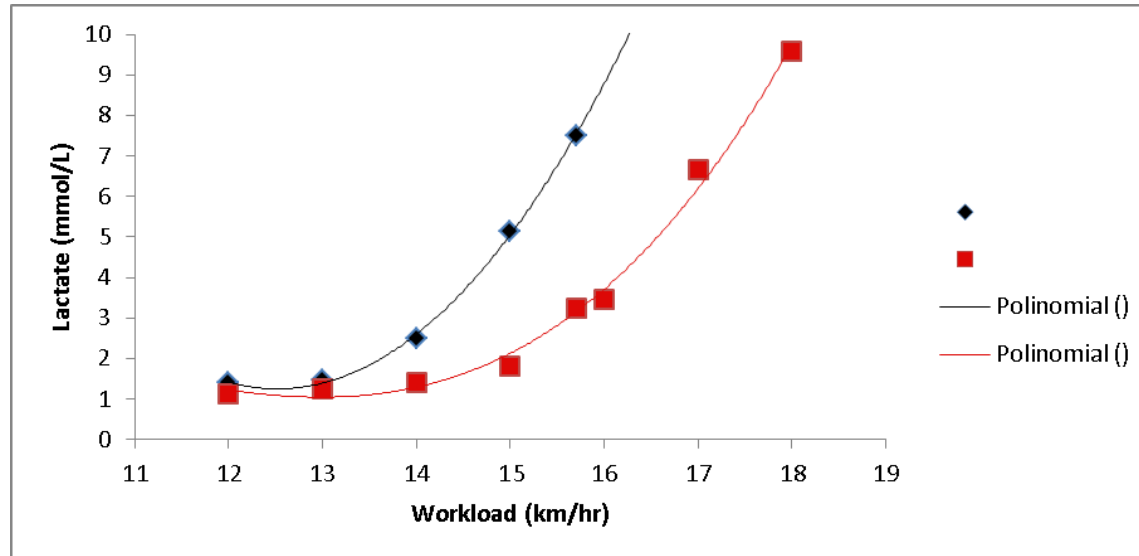


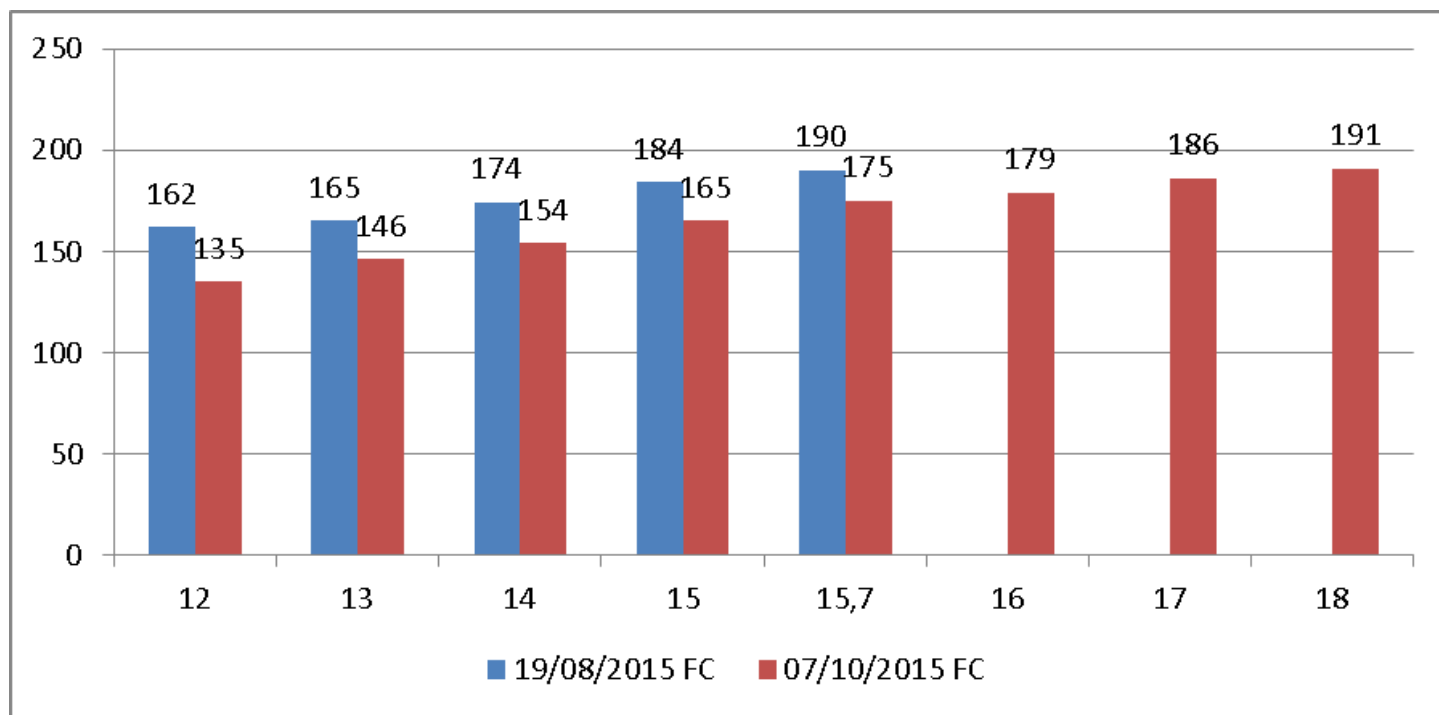
ZURIQUE: RICARDO RIBAS 10º NA MARATONA

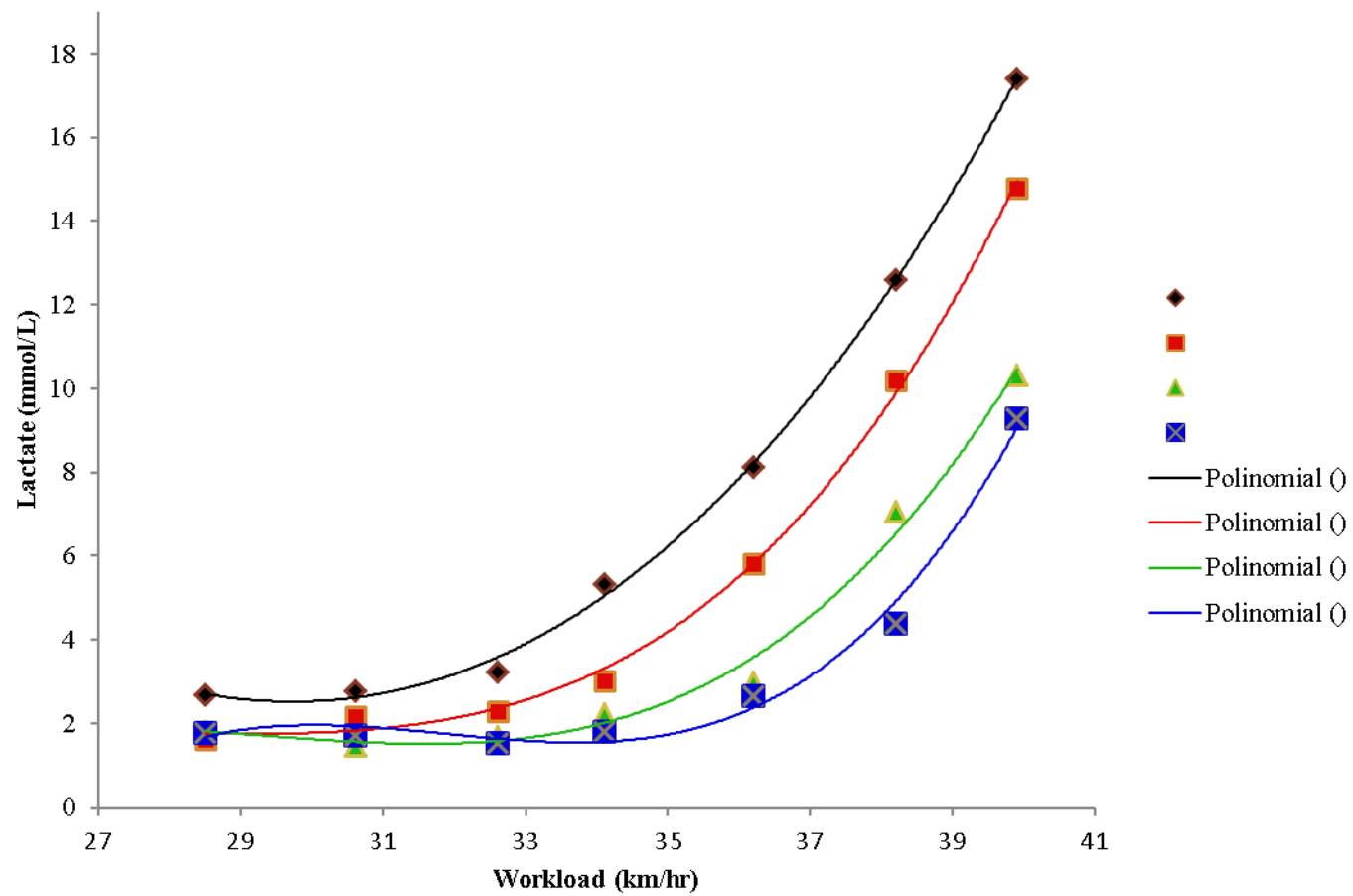


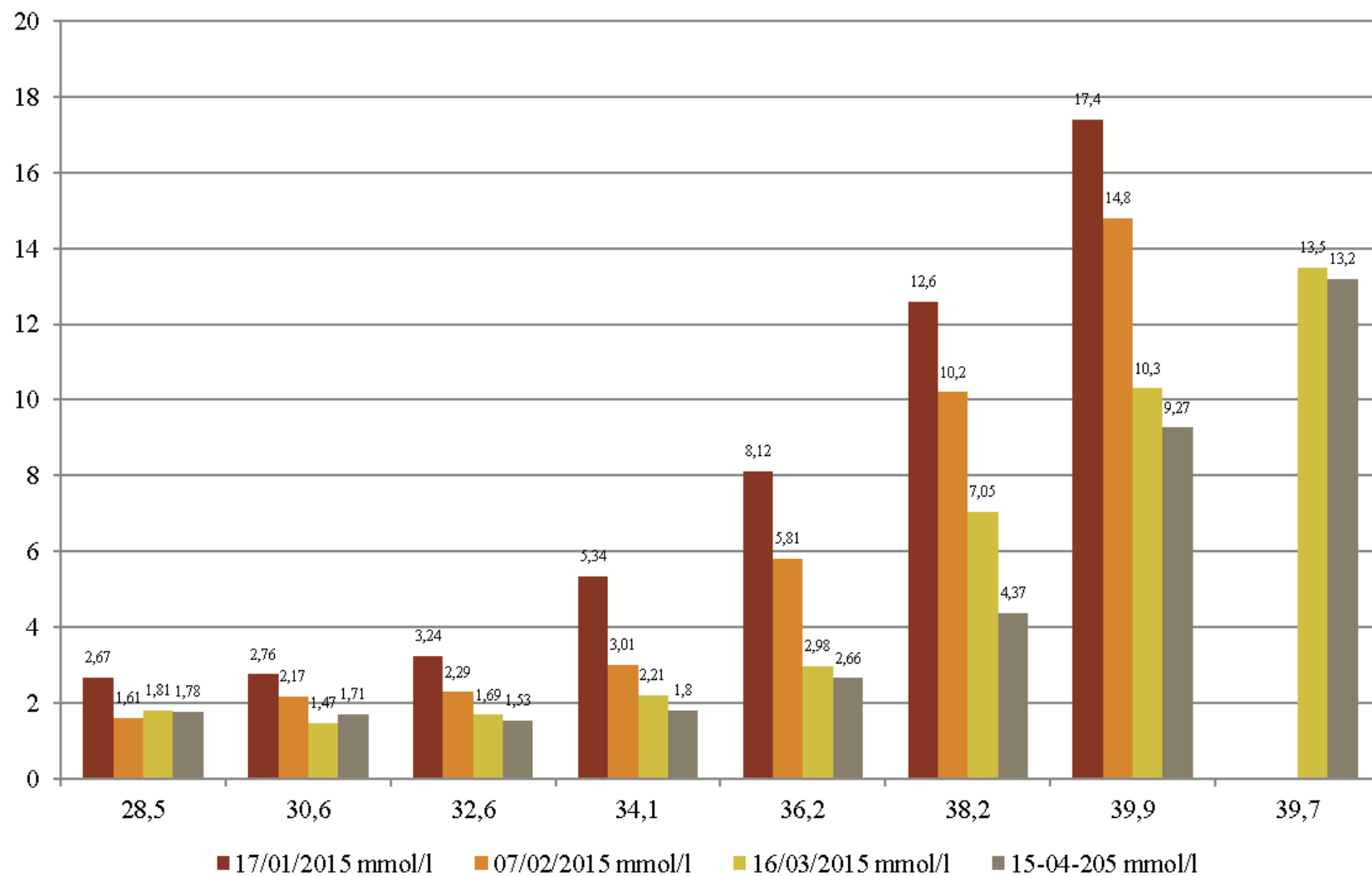
Medalha de Bronze campeonato Europa em Zurique

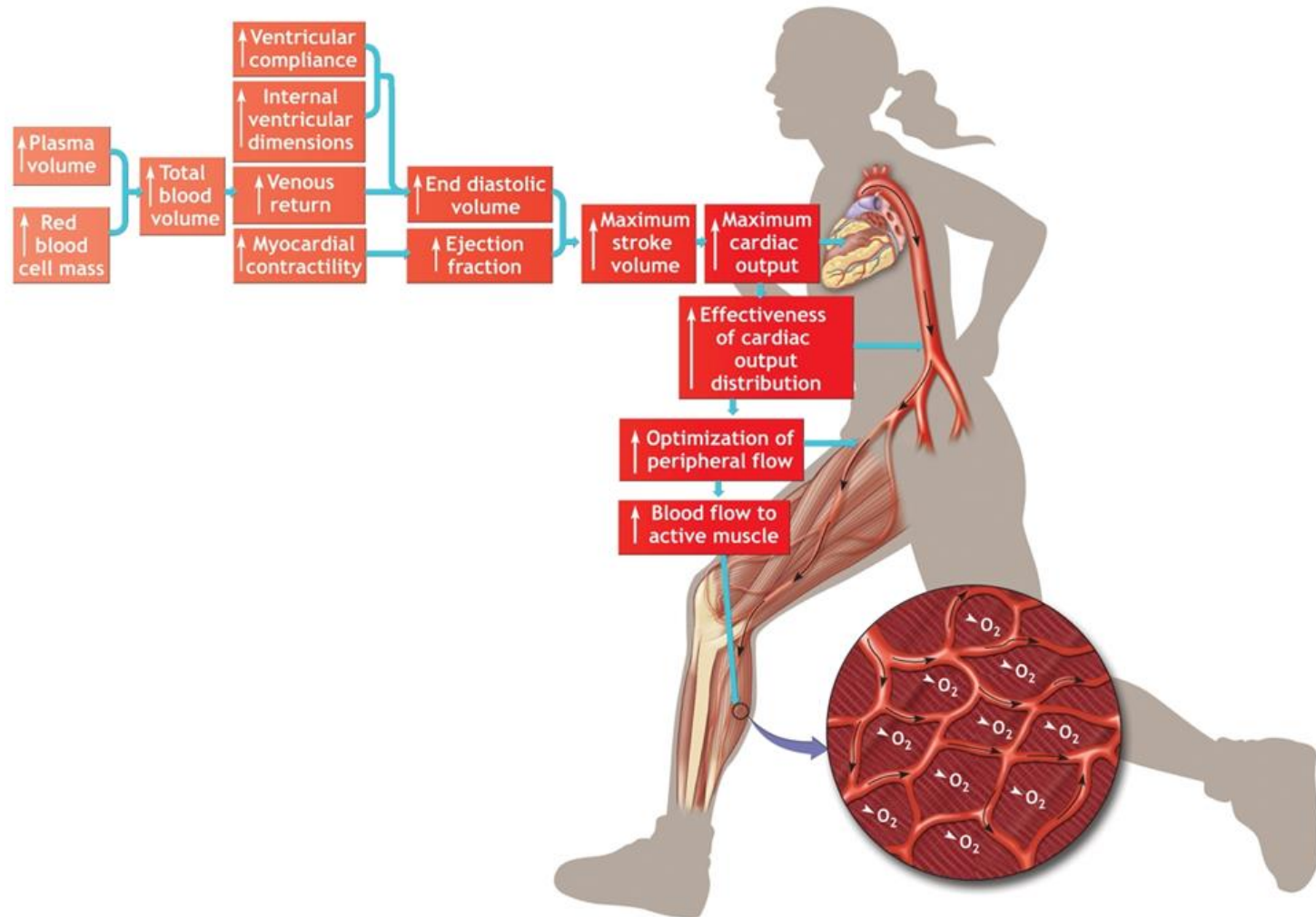
Exemplo da importância do
controle de treino na
preparação de um atleta

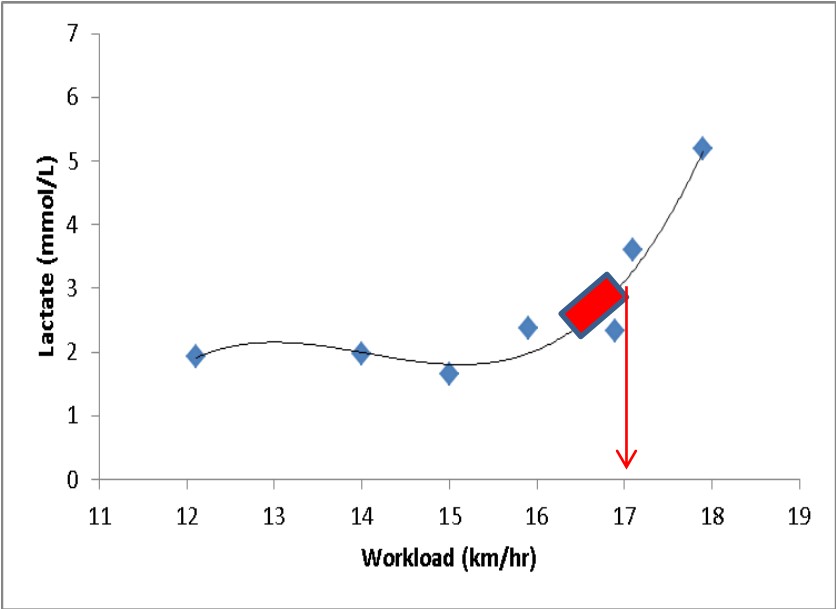
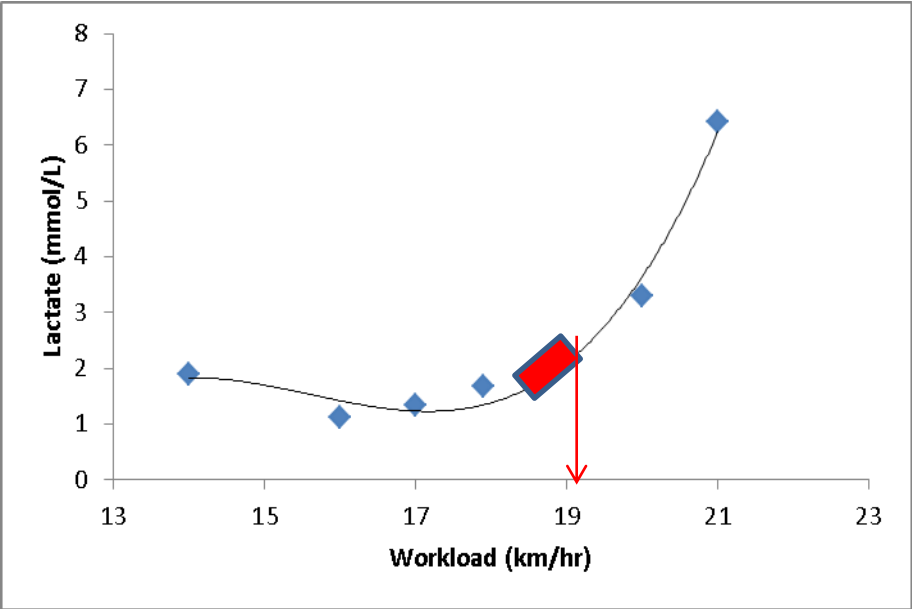


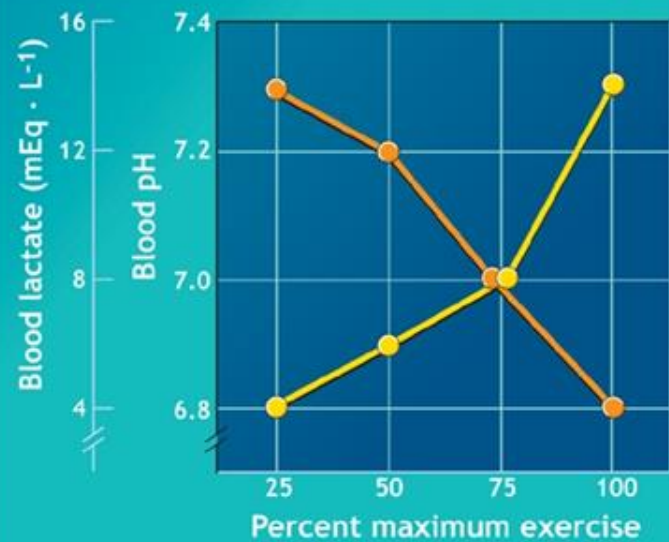
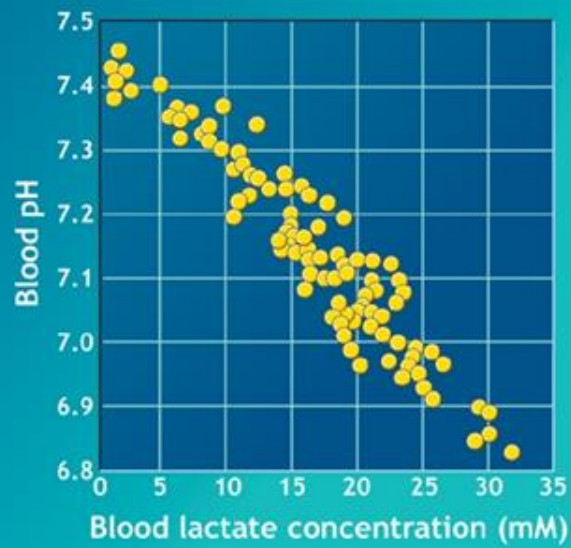












■ Blood lactate ■ Blood pH

