

The Declaration of Independence of Myosin II

November 4, 2005

When in the Course of contractile events it becomes necessary for one myosin to dissolve the bands which have connected them with an actin filament, and to assume among the power strokes of the others, the separate and equal stations to which Nature and Nature's Cell Biology refer, a decent respect to the adjacent myosins requires that we should define the causes which impel muscles via the separation (in a wiki-based model).

We hold these truths to be self-evident (and justified by two-photon microscopy) that all myosin II molecules are created equal: that they are endowed by their Calcium with certain unalienable rights: that among these are flex, stocasticity, and the pursuit of binding sites. --That to secure these rights, Models are among Scientists, deriving their predictive power from congruence with governed molecules --That whenever any Model becomes destructive to ends, it is the Right of Modelers to alter or to abolish it, and to institute a new Model, laying its foundation on such principles as open-sourcing, and organizing its powers in such an interdisciplinary form, as to them shall seem most likely to effect their Scalability and Applicability. Prudence indeed dictate that models long established should not be changed for light and transient causes; and accordingly all experience hath shewn, that mankind are more disposed to simplify, while simplifications are sufferable, than to right themselves by abolishing the formulae to which they are accustomed. But when a long train of abuses of biology and usurpations of physics, pursuing invariably a long train of abuses and usurpations, pursuing invariably the same Object (a single myosin head), reduces muscles to no more than that under assumptions and delusions, it is modelers' right, it is their duty, to throw off such a solipsistic pattern of modeling, and to provide new Parameters for their future development. Such has been the patient sufferance of these modelers; and such is now the necessity which constrains them to alter former systems of modeling. The history of the presentation of cutesy myosin heads former acting in complete synchrony is a history of repeated injuries to our IQ is a history of repeated injuries and usurpations of the cross-bridge cycle, all having in direct object the establishment of an absolute tyranny over these coupled but independent States. To prove this, let the plain lack of Facts be submitted to a candid world.

Please tell me why every single animation of myosin contraction makes the heads look like slaves in Roman galley? There's no one standing over them with a whip!

Taking the ship analogy further... you have thousands of spaceships packed in a 3D array with randomly firing rockets and the ships move en mass in a constant predictable, incredibly finely tuned manner exactly where they're supposed to go. Without bumping into each other.

So what, since they work together some how, who cares? Well, sometimes not all is well in myofibril land and then what is the "miracle" model of muscle contraction (where everyone is in sync) going to tell you?

Nature royally screwed up their cutesy 50th anniversary edition devoted to the sliding filament theory with yet another BS animation and pea-brained assumptions about the way muscles work.

Feel free to add to this list

Therefore, I, as the Representative of "OpenContract," at my computer, dissembling, appealing to Scientific Progress in the world for the rectitude of our intentions, do, in the Name, and by the Authority of good Biophysics of molecular motors intentions, solemnly publish and declare, these Coupled Units are, and of Right ought to be a wiki-model of Free and Independent States of myosin; that myosin (and actin) are Absolved from all Allegiance to particular Models and the "politics" of biology vs. computer science, that, as Free and Independent units of a coupled system they have full Power to lever objects, conclude they're too heavy, they have full Power to levy War, conclude Peace, contract Diseases, establish Commerce with neurotransmitters, and do all other Acts and things which open source models of coupled systems have the right to do. And for the support of this wiki-model, with a firm reliance on the protection of the "trackback" feature, we mutually pledge to each other our Lives, (such as they are) our Fortunes (I paid \$23.40 for this domain+hosting) and our Sacred honor (lousy models really tick me off).

Chris Gaiteri
[insert flourish here]

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When in the Course of human events it becomes necessary for one people to dissolve the political bands which have connected them with another and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness. -- That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed, -- That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn that mankind are more disposed to suffer, while evils are sufferable than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security. -- Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former Systems of Government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid world.

[... Section on list of grievances excluded]

We, therefore, the Representatives of the United States of America, in General Congress, Assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do, in the Name, and by Authority of the good People of these Colonies, solemnly publish and declare, That these United Colonies are, and of Right ought to be Free and Independent States, that they are Absolved from all Allegiance to the British Crown, and that all political connection between them and the State of Great Britain, is and ought to be totally dissolved; and that as Free and Independent States, they have full Power to levy War, conclude Peace contract Alliances, establish Commerce, and to do all other Acts and Things which Independent States may of right do. -- And for the support of this Declaration, with a firm reliance on the protection of Divine Providence, we mutually pledge to each other our Lives, our Fortunes and our sacred Honor.