

## Messrs. H & H

Henderson said to Hasselbach  
Got to figure out how most drugs  
react

Henderson said to Hasselbach -  
We got to figure it out

Hasselbach said to Henderson  
What we really need is an  
equation

Then our names, Messrs. H and H  
Will live long after we're dead

Drug molecules almost invariably;  
two forms can you find  
Ionized or non-ionized -the pH  
decides

And the pH where they will be  
half ionized

We'll call the pKa

Henderson said to Hasselbach  
Consider the way that weak acids  
react

When they're totally ionized

They just can't be absorbed

But when they're in acidic  
environment, where pH is low

Predominantly they are non-  
ionized

Through membranes they go

And the pH where they will be  
half ionized -is their pKa

Hasselbach said to Henderson  
Bases can capture a hydrogen ion  
In that state, they are ionized -and  
just can't be absorbed

When they're in acidic  
environment - where pH is low  
They're bound to be totally ionized  
- absorption - no no  
And the pH where they will be half  
ionized - is their pKa

Henderson said to Hasselbach  
I think we've figured out how most  
drugs react

Henderson said to Hasselbach -  
we've really figured it out

Hasselbach said to Henderson  
We've got ourselves a really nice  
equation

Now our names, Messrs. H and H  
Will live long after we're dead.

*We have all heard of the Henderson-  
Hasselbach equation but who were  
Messrs. Henderson and Hasselbach?  
I have always assumed that it is not a  
single scientist with double-barrelled  
surname (Mr. Henderson-  
Hasselbach?).*