Penicillin was NOT the result of using Animals!

In the argument of whether it is Necessary to use animals in laboratories to Help Humans.... Here is an excellent example as to WHY it is completely UNNECESSARY and how the scientific community has continued to exaggerate and mislead the public into believing that it is necessary.....

The Discovery and Development of Penicillin
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The discovery and development of penicillin is often heralded by those who advocate using animals in research as an example of a breakthrough that was dependent upon animals. They triumphantly point to the mice that were used to test the drug in the early 1940s. On a web page from the Foundation for Biomedical Research, the awarding of the Nobel Prize in 1945 to Fleming, Florey and Chain for the discovery and development of penicillin is listed as being dependent upon research with mice.

After injection into an ear vein of a rabbit and with blood samples taken periodically thereafter for testing, it was found that penicillin was rapidly removed from the bloodstream. Samples taken at 30 minutes were found almost completely devoid of activity. Of what use might be an antibacterial agent that took several hours to act but was removed from the body within 30 minutes and inhibited by the blood with which it would obviously be mixing?

The rabbits excreted penicillin in their urine so rapidly Flemming did not think the drug would be effective. A believer in animal models being predictive, he assumed that humans would react like rabbits. This mistake cost lives! Unfortunately, the same mindset is still costly lives.

Fleming continued to grow penicillin and even administered it to humans prior to the 1940s. Fleming routinely gave penicillin to humans with topical infections for years after 1929. Through a student of his, GG Paine, Fleming gave it to four humans
suffering from ophthalmic neonatorum, an eye disease of infants, three of whom responded well. Paine went on to treat more patients with penicillin. Fleming also treated KB Rogers, an assistant in the lab. Physicians at Columbia University also used penicillin to treat bacterial infections of the eye. Fletcher of Oxford was another physician that used penicillin to treat bacterial infections of the eye. All these were topical uses, not systemic. Such human observation also encouraged Florey to continue the penicillin purification process.

Florey and Chain conducted research with penicillin and produced a purified product using basic chemistry. The purified product was tested on mice resulting in cures of otherwise fatal infections. Fleming obtained the more pure form of penicillin, which he gave to his friend in 1942, from Florey. The purification process was classic in vitro research, based on knowledge of chemistry. If Florey gained the confidence to proceed, based on tests in mice, that does not mean that animals were incumbent for the development of the drug. If he had used guinea pigs, who knows what would have happened?

The fact that Florey and Chain used mice to test penicillin is not an example of animals being necessary for a discovery. In fact, Florey and Chain almost made another animabased mistake. If they had the guinea pig, society would have had to wait even longer for penicillin. The basis for the claim that mice were necessary for penicillin's development emphasizes the fact that the animal model community, even in light of current knowledge of evolutionary biology, genomics, and complex systems continues to insist that results from animals can be directly extrapolated to humans. It is thinking of this nature that delays personalized medicine and cures. Animal models are not predictive for humans vis-à-vis drug testing and disease research.

In August 1942, a close personal friend of Fleming had contracted streptococcal meningitis. When conventional therapy failed and death seemed imminent, Fleming turned to Florey for help. The latter personally delivered his remaining supply of penicillin to Flemming and instructed him in the initial use of it. A dramatic cure was obtained, even the more so since penicillin was administered into the spinal canal for the first time to enhance its effectiveness.

BOTTOM LINE:
Florey, co-winner of the Nobel Prize for penicillin, administered penicillin to a cat at the same time Fleming was giving it to his sick friend. Florey's cat died. Under certain circumstances, penicillin kills guinea pigs and Syrian hamsters. In addition, penicillin is teratogenic in rats, causing limb malformations in offspring. This is one of the problems with using animals to predict human response. If you had been Fleming, Florey or one of the other scientists, which species would you have believed? The dead cat? The rabbit that metabolized penicillin so rapidly? The guinea pigs and hamsters it would have killed had it been tested on them? Or the mice on which it worked? Penicillin was not the result of basic research using animals. Animal use actually misled Fleming suggesting penicillin would be ineffective systemically.

Full article can be found here:
http://www.afma-curedisease.org/pdf/penicillin.pdf