# Article information:

Genome of the Komodo dragon reveals adaptations in the cardiovascular and chemosensory systems of monitor lizards | Nature Ecology & Evolution  
<https://www.nature.com/articles/s41559-019-0945-8>

# Article summary:

1. The genome of the Komodo dragon has been sequenced and a de novo assembly generated, providing insight into the evolution of form and function in non-avian reptiles.

2. The Komodo dragon exhibits unique cardiopulmonary physiology and metabolism with numerous parallels to the mammalian cardiovascular system, enabling it to sustain higher aerobic metabolic rates and endurance capacity than similar size non-varanid squamates.

3. Analysis of the genome revealed positive selection for genes encoding regulators of muscle metabolism, cardiovascular homoeostasis, and haemostasis, as well as multiple lineage-specific expansions of a family of chemoreceptor genes in several squamates.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Genome of the Komodo Dragon Reveals Adaptations in the Cardiovascular and Chemosensory Systems of Monitor Lizards” is an informative piece that provides insight into the genetic underpinnings of Komodo dragon physiology. The authors present a detailed description of their methods for sequencing the genome, including 10x Genomics linked-read sequencing, Bionano optical mapping data, PacBio sequencing and Oxford Nanopore MinIon sequencing. They also provide evidence for their findings by citing relevant sources throughout the article.

However, there are some potential biases that should be noted when considering this article. For example, while they cite sources to support their claims throughout the article, they do not explore any counterarguments or alternative explanations for their findings. Additionally, they do not discuss any potential risks associated with their research or its implications on conservation efforts for monitor lizards or other species studied in this paper. Furthermore, while they provide evidence from other studies to support their claims about Komodo dragon physiology and behavior (such as hunting large prey), they do not provide any direct evidence from their own study to back up these claims.

In conclusion, this article provides an informative overview of the genetic underpinnings of Komodo dragon physiology but could benefit from further exploration into counterarguments or alternative explanations for its findings as well as discussion on potential risks associated with its research and implications on conservation efforts for monitor lizards or other species studied in this paper.

# Topics for further research:

* Komodo dragon conservation
* Cardiovascular adaptations in monitor lizards
* Chemosensory adaptations in monitor lizards
* 10x Genomics linked-read sequencing
* Bionano optical mapping data
* Oxford Nanopore MinIon sequencing

# Report location:

<https://www.fullpicture.app/item/9147e71d6c062812d4df2599e872b91d>