# Article information:

Frontiers | Lysophosphatidic Acid–Induced EGFR Transactivation Promotes Gastric Cancer Cell DNA Replication by Stabilizing Geminin in the S Phase
<https://www.frontiersin.org/articles/10.3389/fphar.2021.706240/full>

# Article summary:

1. DNA replication is strictly regulated in eukaryotes to prevent aneuploidy and re-replication.

2. Geminin levels fluctuate throughout the cell cycle and are degraded in late mitosis/G1 phase by the APC/C ubiquitin ligase complex.

3. Aberrant geminin expression has been linked to DNA replication damage, aneuploidy, and genomic instability, all of which are associated with a precancerous state and malignant transformation.

# 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 “Lysophosphatidic Acid–Induced EGFR Transactivation Promotes Gastric Cancer Cell DNA Replication by Stabilizing Geminin in the S Phase” provides a comprehensive overview of the role of geminin in regulating DNA replication in eukaryotic cells. The article is well-written and provides a clear explanation of the mechanisms involved in regulating geminin levels throughout the cell cycle. The authors also provide evidence for their claims, citing relevant studies that support their arguments.

However, there are some potential biases present in the article that should be noted. For example, while the authors discuss how aberrant geminin expression can lead to precancerous states and malignant transformation, they do not explore any potential counterarguments or alternative explanations for this phenomenon. Additionally, while they discuss how lysophosphatidic acid (LPA) can stimulate cell proliferation, migration, and survival through activation of G protein–coupled receptors (GPCRs), they do not mention any possible risks associated with LPA signaling or its potential effects on other cellular processes such as apoptosis or autophagy. Furthermore, while they discuss how transactivation of epidermal growth factor receptor (EGFR) can induce mitogen-activated protein kinase (MAPK) signaling and gene expression, they do not provide any evidence to support this claim or explore any unexplored counterarguments that could challenge this assertion.

In conclusion, while this article provides a comprehensive overview of the role of geminin in regulating DNA replication in eukaryotic cells, it does have some potential biases that should be noted when evaluating its trustworthiness and reliability.

# Topics for further research:

* G protein-coupled receptor (GPCR) signaling
* Lysophosphatidic acid (LPA) risks
* Epidermal growth factor receptor (EGFR) transactivation
* Mitogen-activated protein kinase (MAPK) signaling
* Geminin expression and cancer
* Apoptosis and autophagy regulation

# Report location:

<https://www.fullpicture.app/item/e4da2f584cbaa2c1f07bd558e7f53dee>