



## NM-96: A Small Molecule For The Treatment of Acute Sickle Crisis

Life Science Summit 10/29/14

Steven Isaacman, Ph.D.

Founder & CEO

Nanometrics LLC

# About Nanometics

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- **Founded in 2008 with focus on dermatology**
- **Divested this business into PHD Skin Care**



SKIN CARE

[www.phdskincare.com](http://www.phdskincare.com)

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**Hematology**

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**TRACK RECORD:** **Nanometics** sells polymers, OTC drugs, and skin care products globally and has an extensive network of collaborators and distributors in pharmaceuticals and personal care. The **NM-96** molecule has demonstrated safety in 450 patients under the sponsorship of another pharmaceutical company. Nanometics has methods of use IP for SCD.



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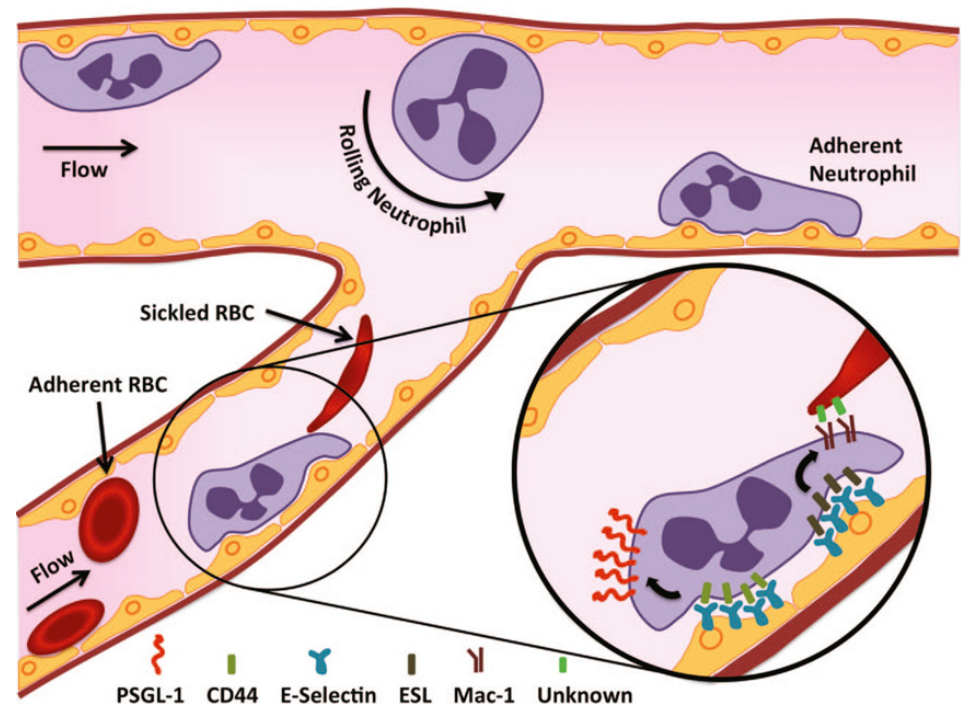
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- **Recently raised** \$3,000,000 from the National Heart Lung and Blood Institute.
- **Methods of use IP** filed and co-assigned to Nanometics and AECOM
- **Currently** working with the NHLBI SMARTT program to clear an IND and our goal is to find a partner for clinical trials.

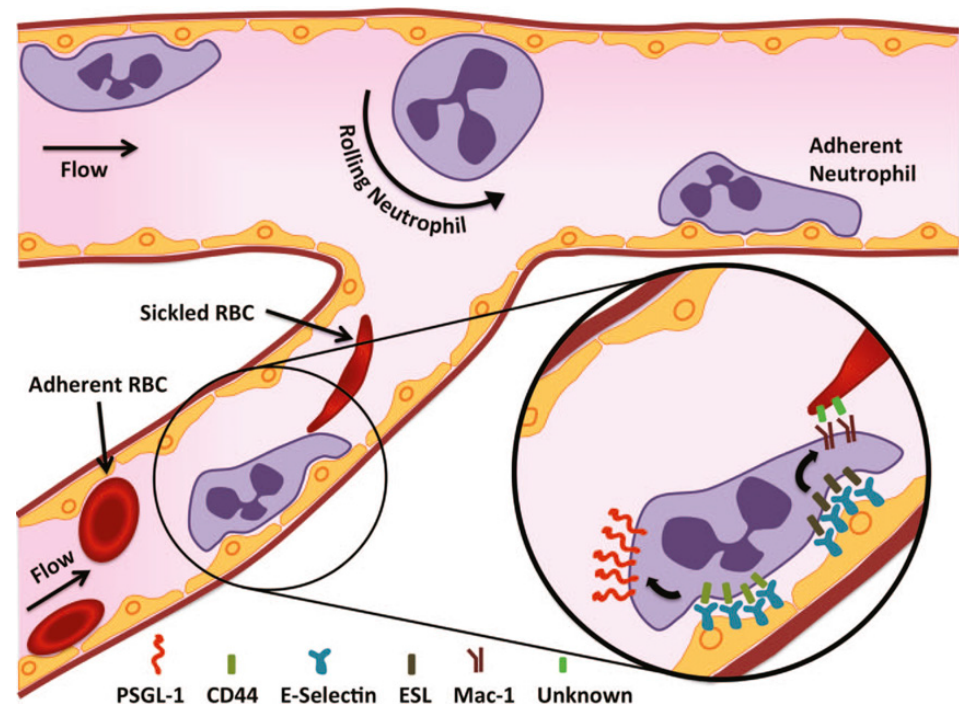
# Sickle Cell Disease and Sickle Crisis

- **SCD** results from a single point mutation that weakens the affinity of hemoglobin for oxygen and enables polymers of hemoglobin to form and distort the shape of the red blood cell (RBC).
  - Orphan disease most common in African, Mediterranean or Asian ancestry.
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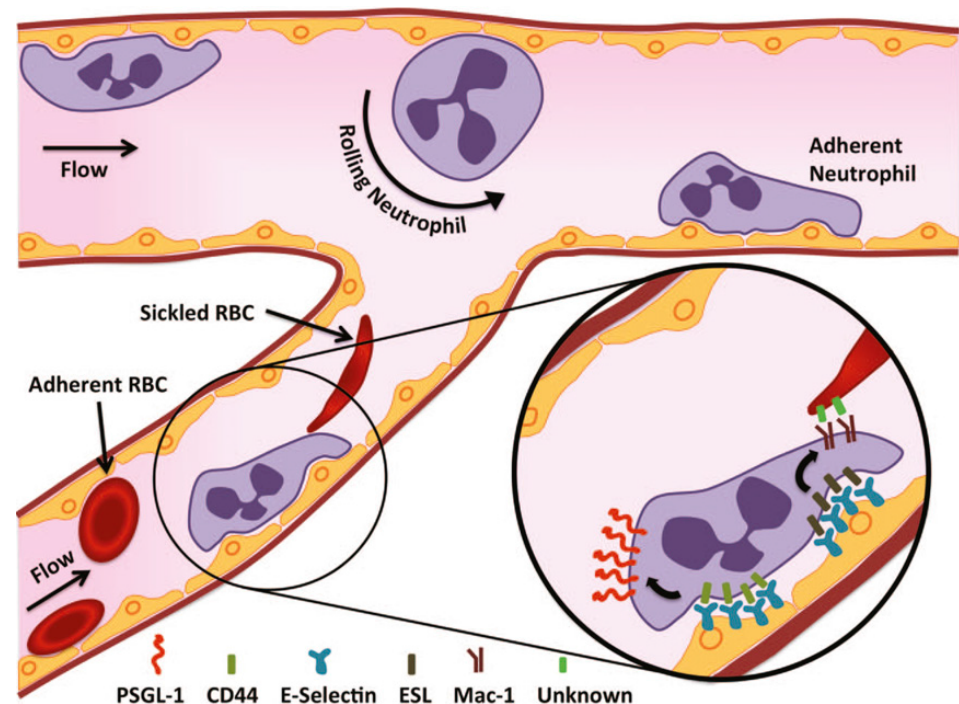
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- A cascade ensues that damages the endothelium, and causes leukocytes and RBC to adhere in vasculature. Vaso-occlusion (VOC) and painful episodes of sickle crisis result.





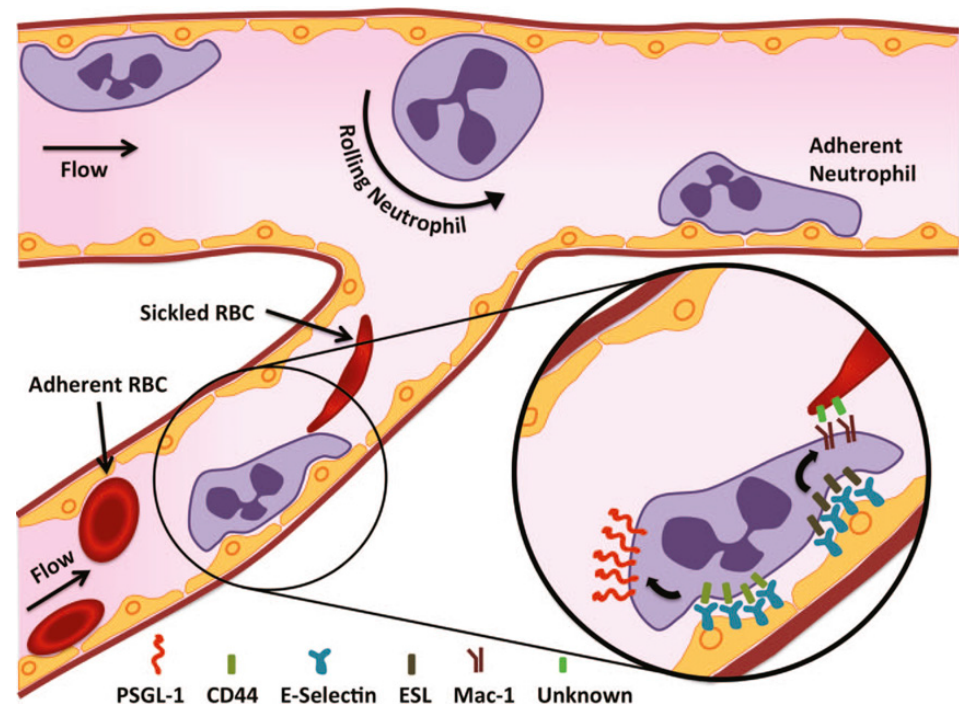
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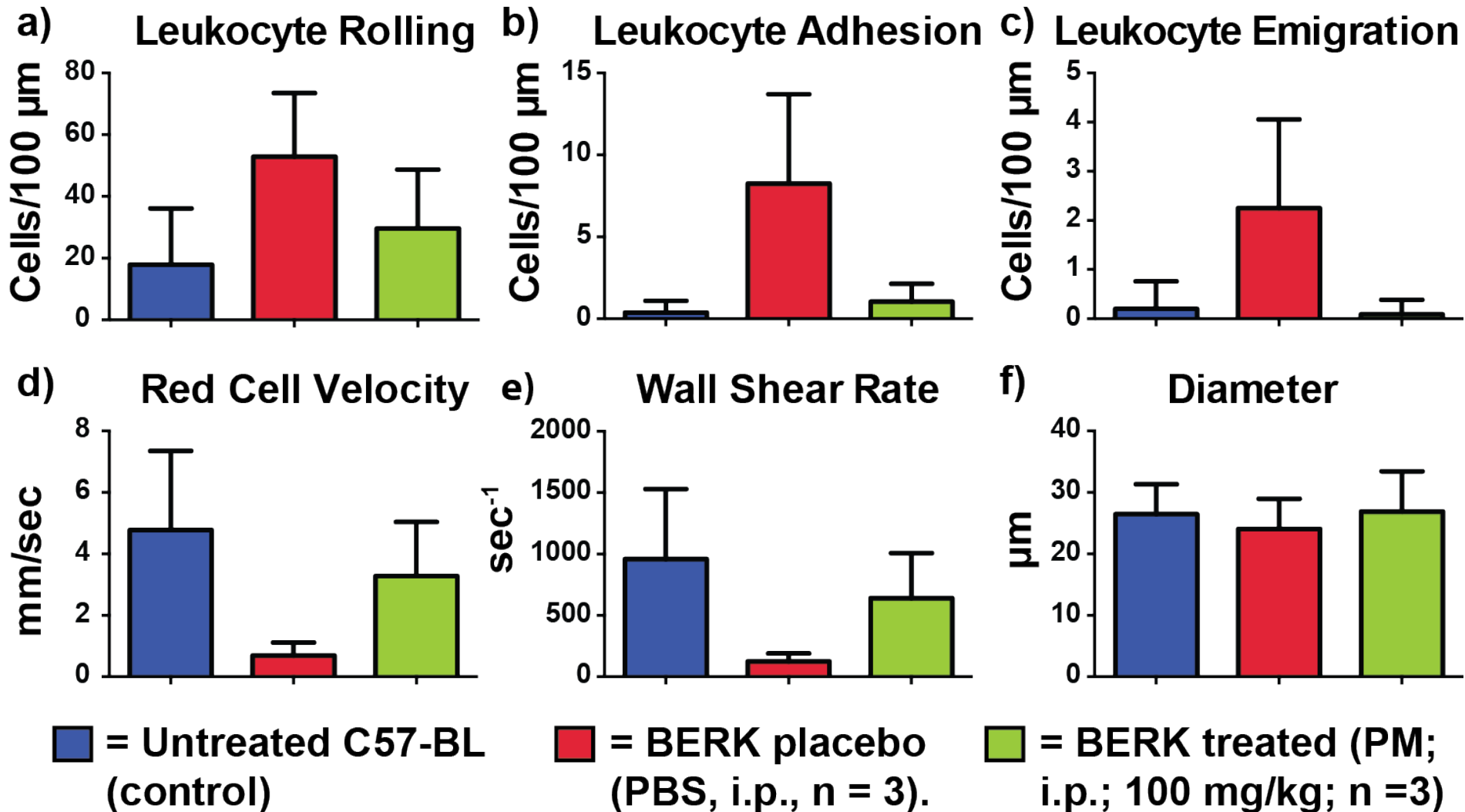
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- A cascade ensues that damages the endothelium, and causes leukocytes and RBC to adhere in vasculature. Vaso-occlusion (VOC) and painful episodes of sickle crisis result.
- Less symptomatic events cause other debilitating acute and chronic effects.
- Significant financial stress on the United States Healthcare system, with annual costs exceeding \$1.1 billion.



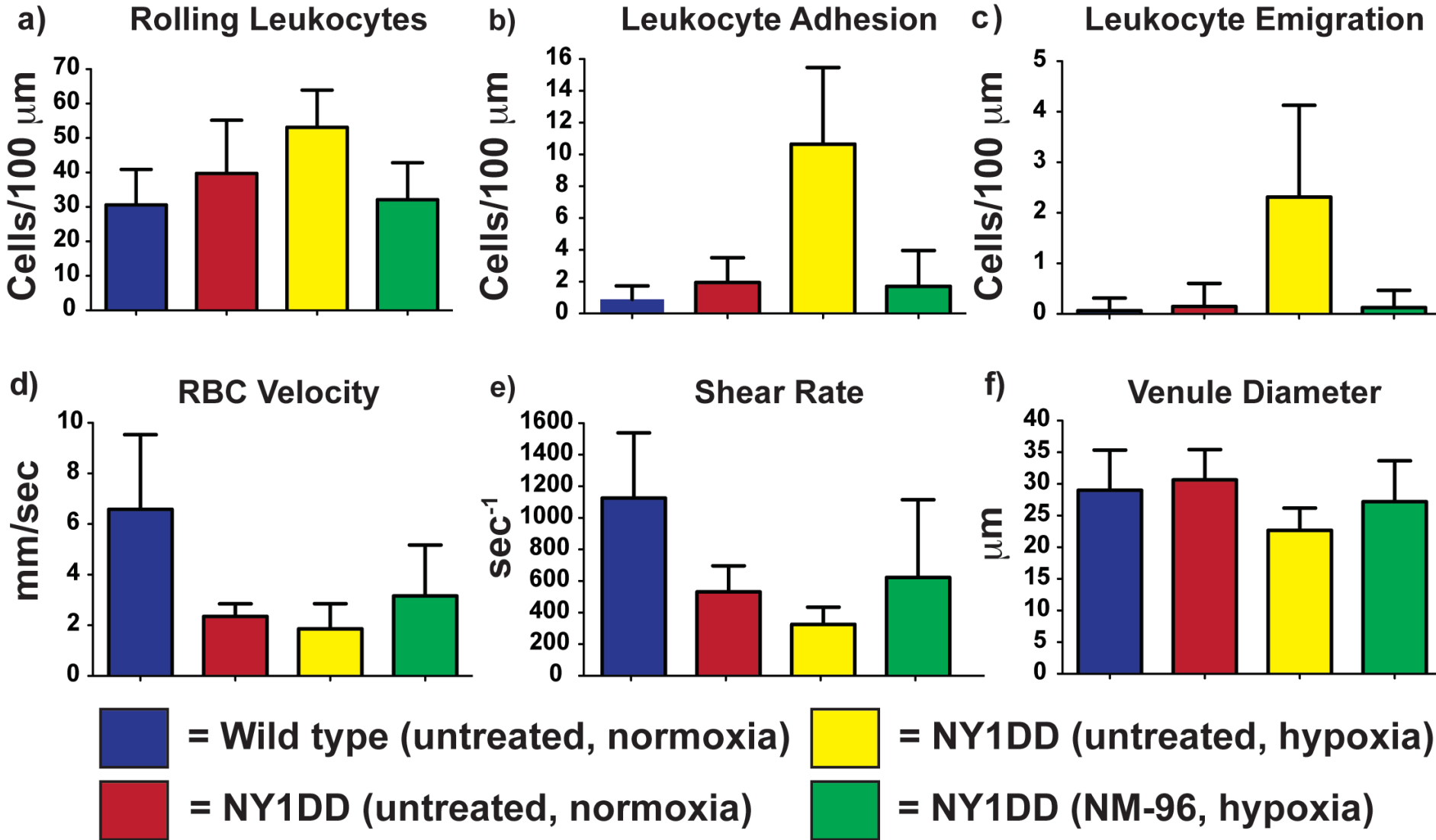
# NM-96 in BERK Models of Disease

A single dose of NM-96 mitigates endothelial activation and improves hemodynamic properties to near wild type levels



# NM-96 in NY1DD Models of Acute Crisis

A single dose of NM-96 mitigates the effects of sickle crisis



## Summary and Conclusions

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- GMP material available on multi-kilogram scale.



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**THANK YOU**

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