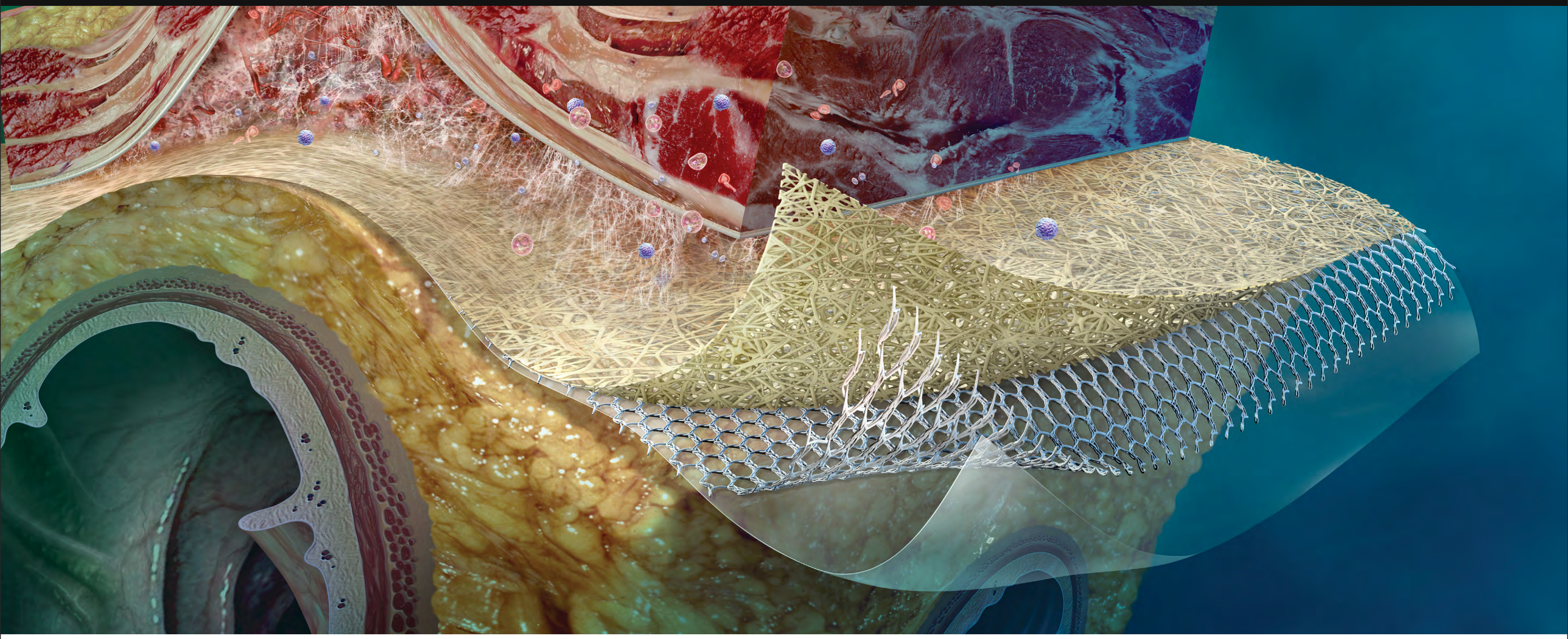
Strength Measurement Test Results

for Competitive Hernia Repair Devices



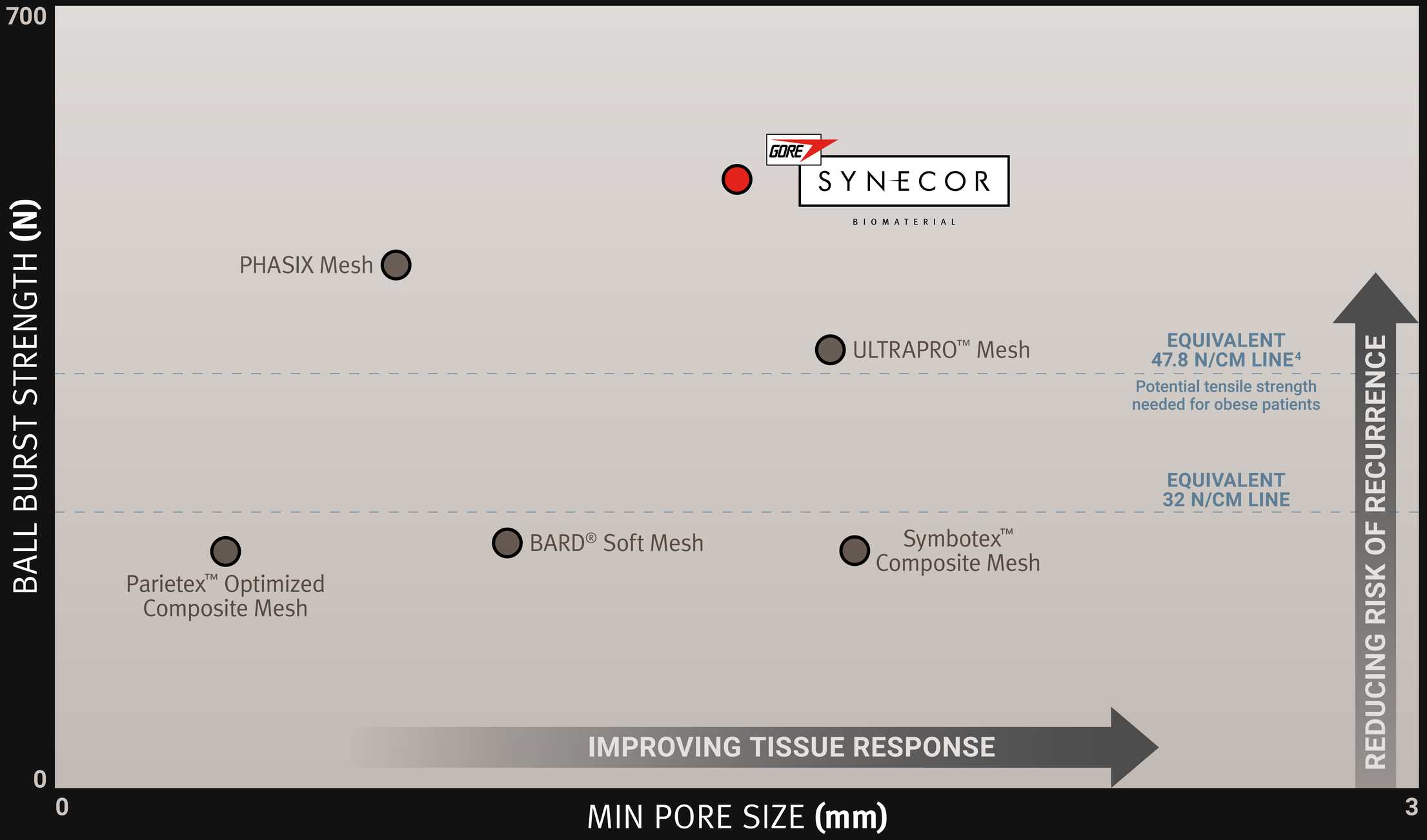
Ball Burst Strength Competitive Test Data

Suture Pullout Strength Competitive Test Data

GORE SYNECOR BIOMATERIAL

Ball Burst Strength vs Minimum Pore Size

Literature suggests the strength requirement for bridging ventral hernia repair has an abdominal wall surface tension of 32 N/cm[1,2,3]. A calculation is used to convert the 32 N/cm into a load of 255 N which is measured using the international standard ball burst test method for material strength, ASTM D3787. ***Please select a competitor to compare test data.***



NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth[5] and reduced scar plate formation[6].

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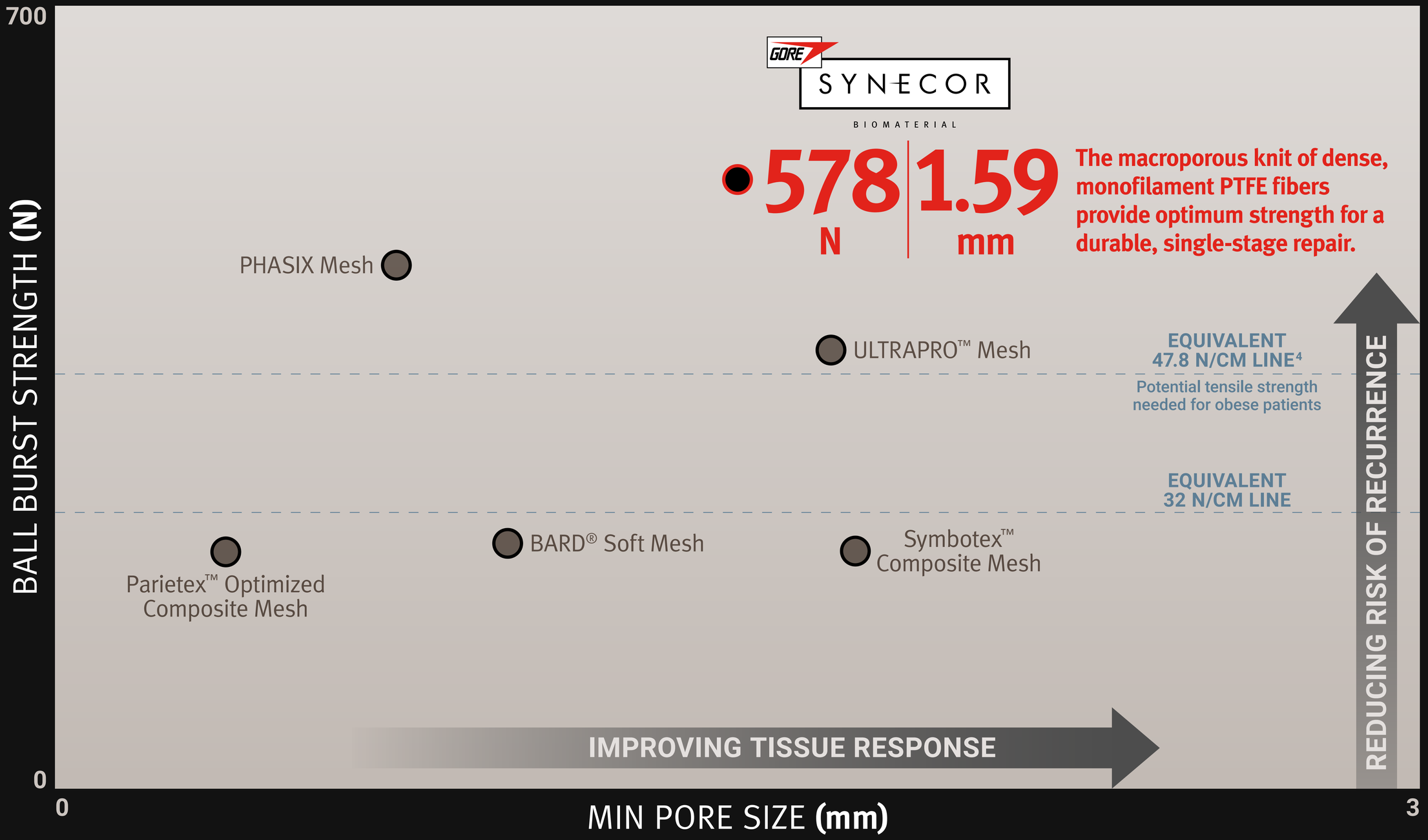

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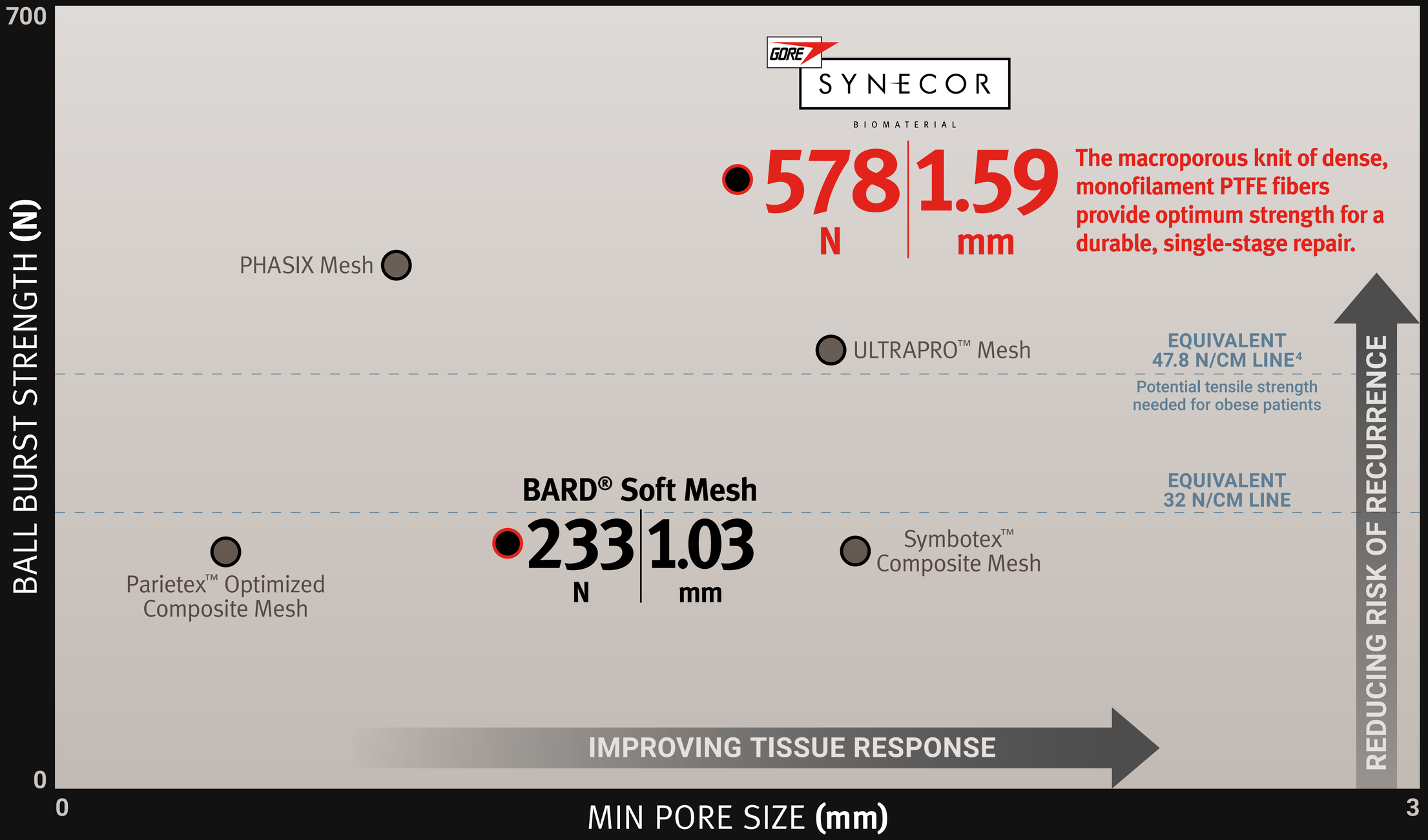

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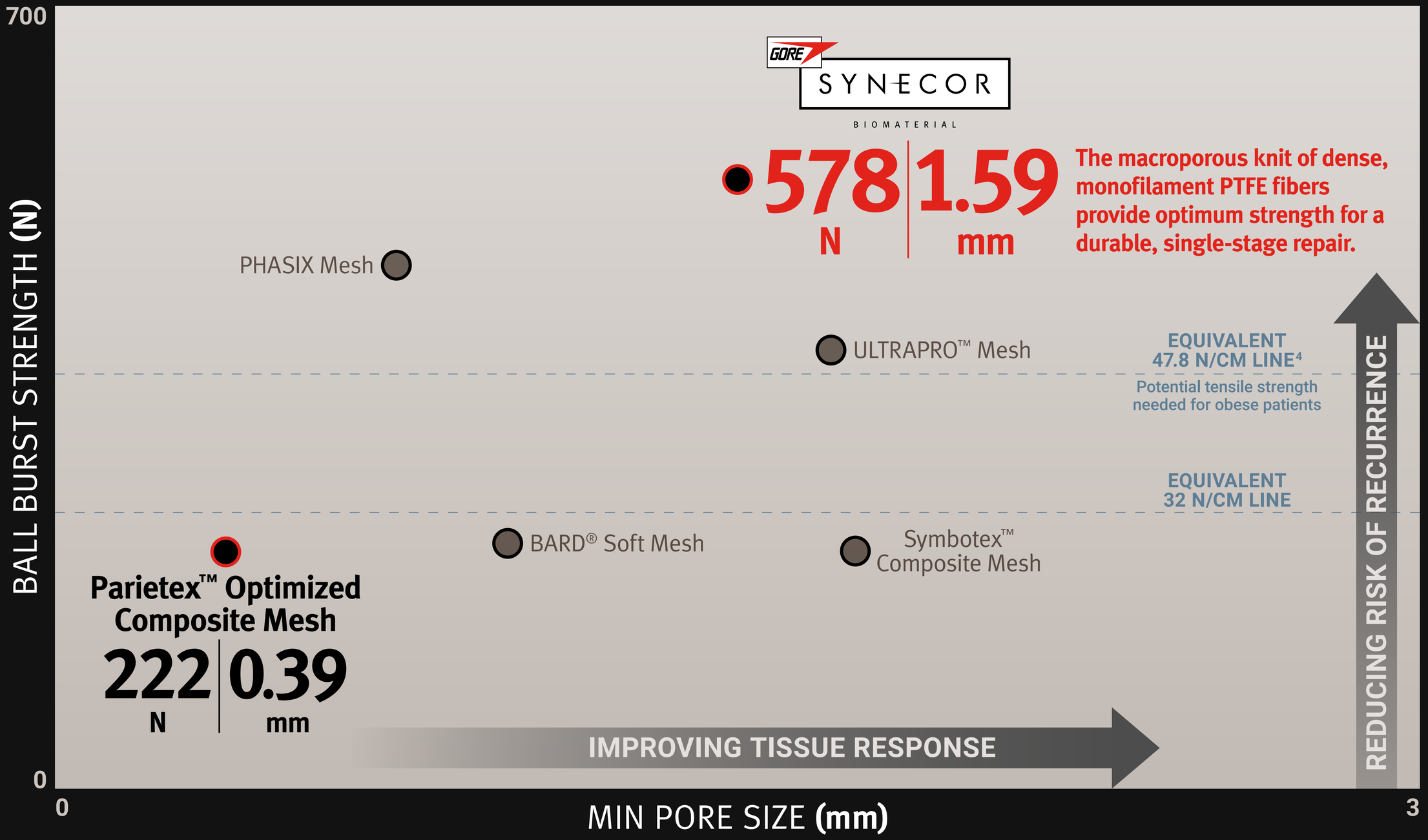

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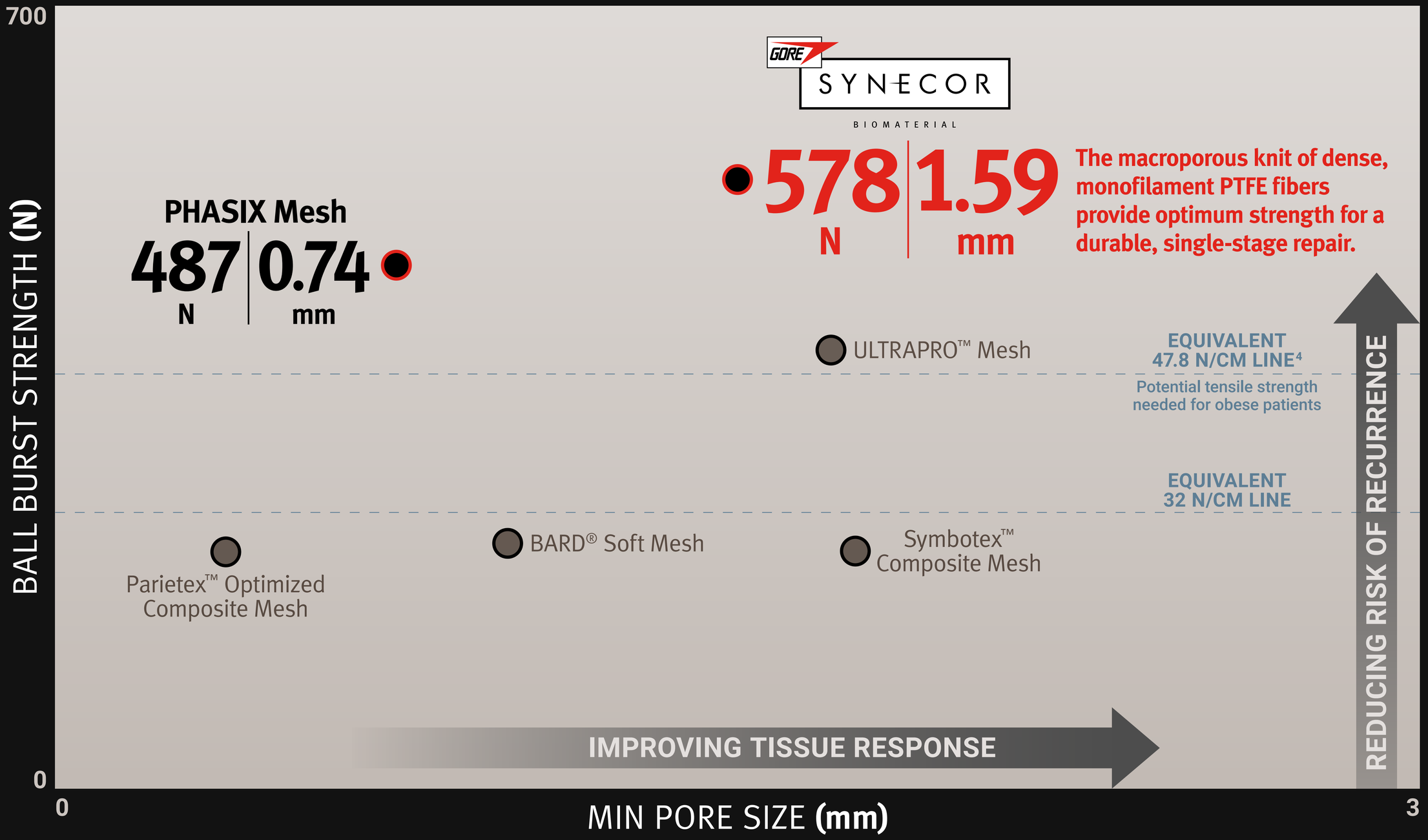

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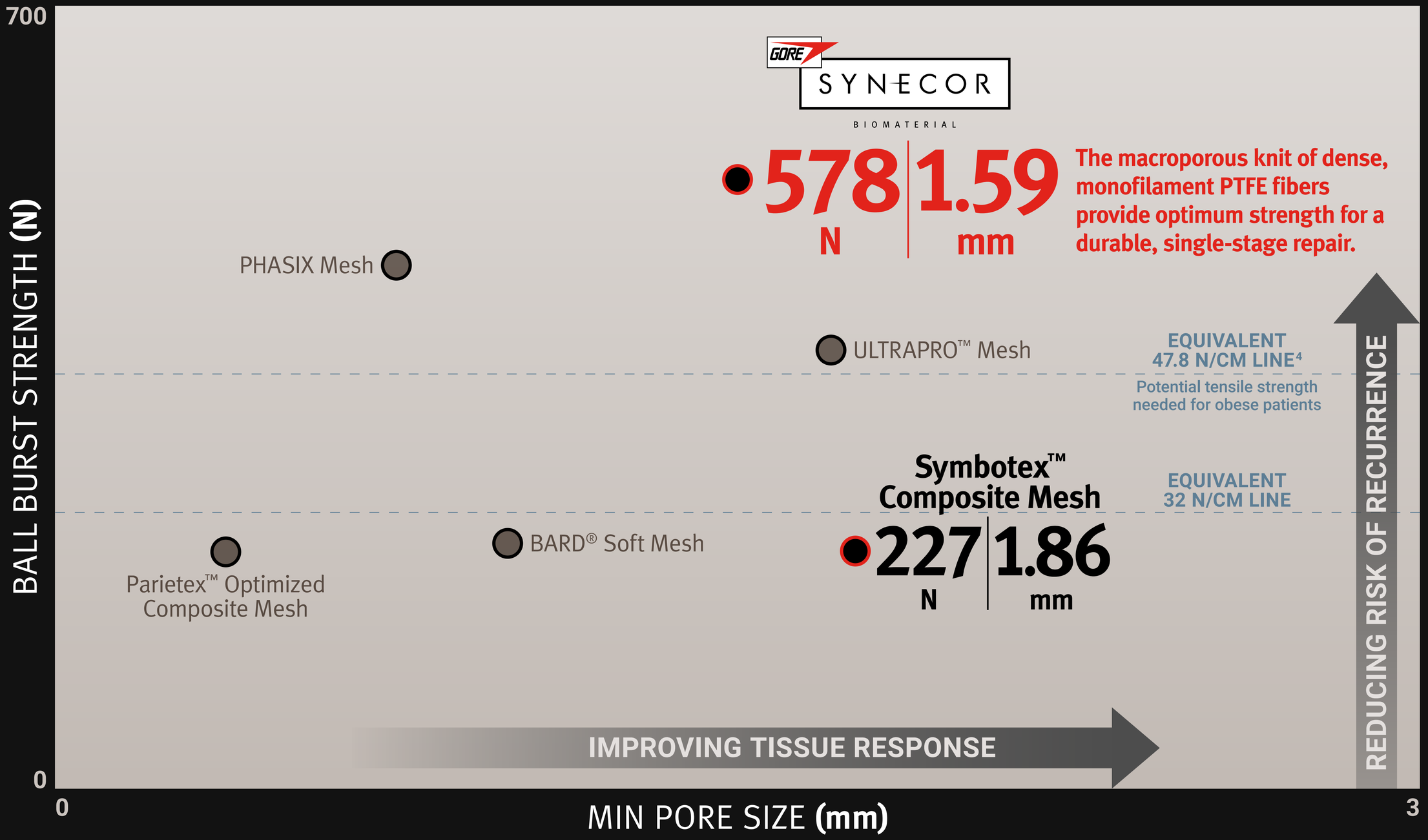

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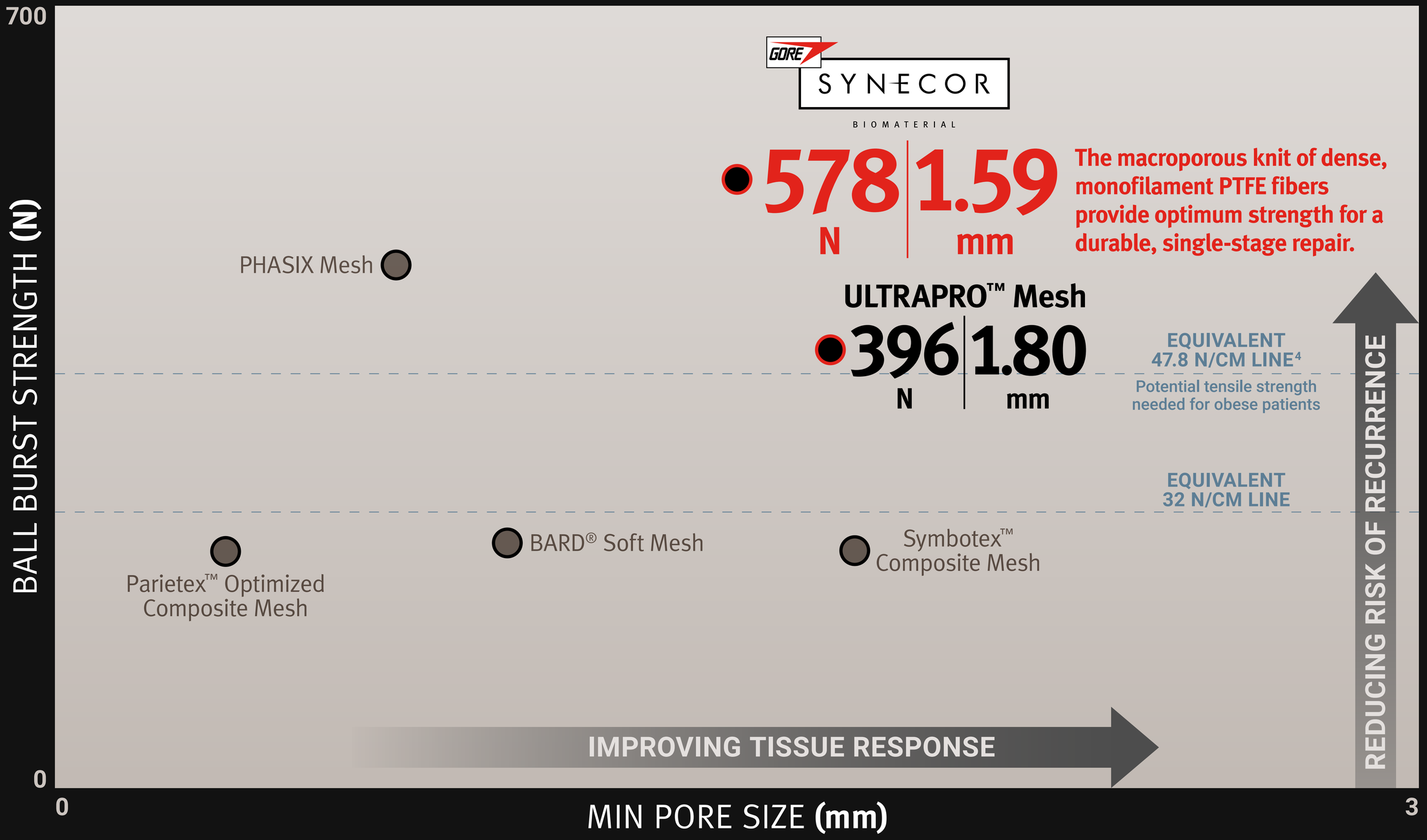

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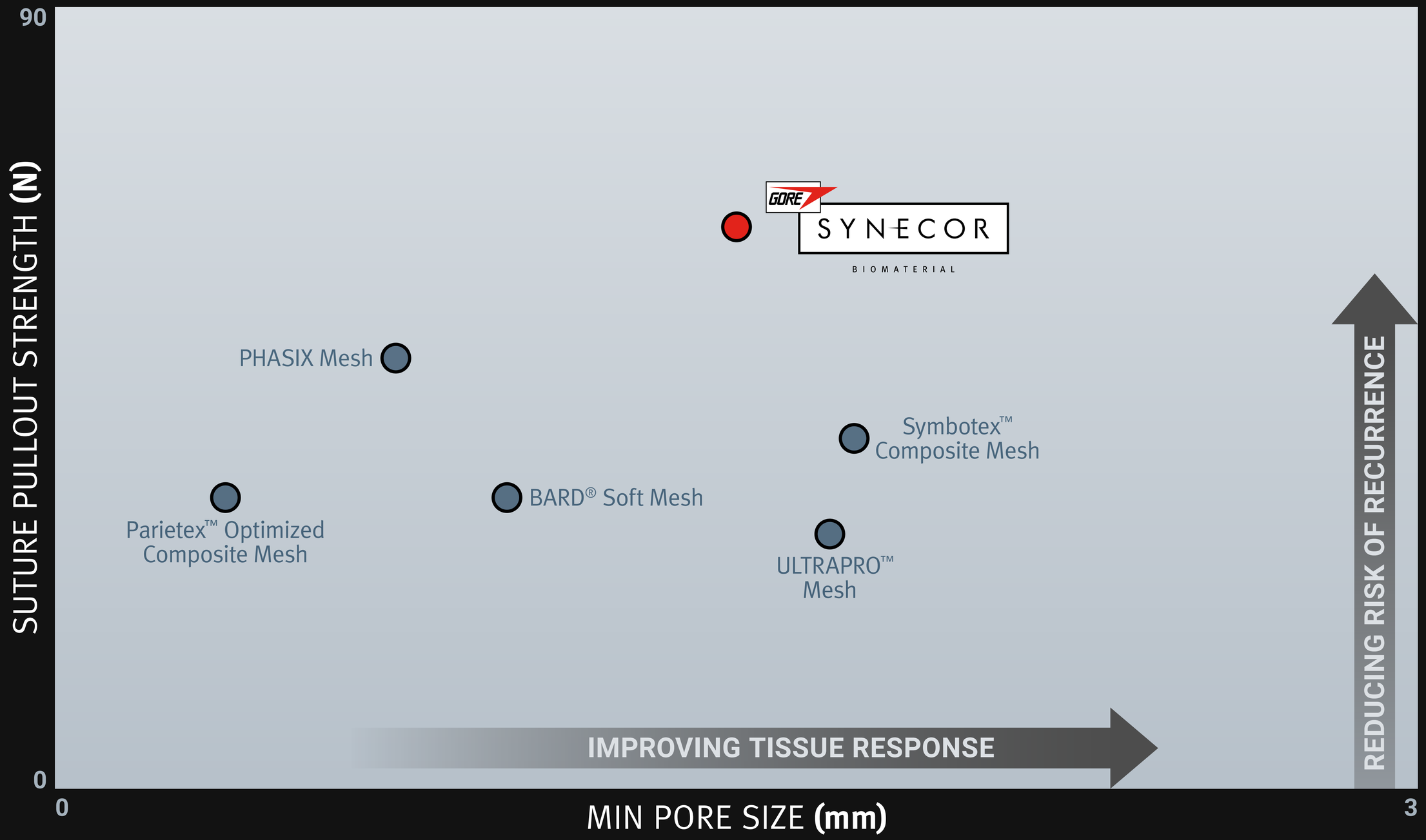

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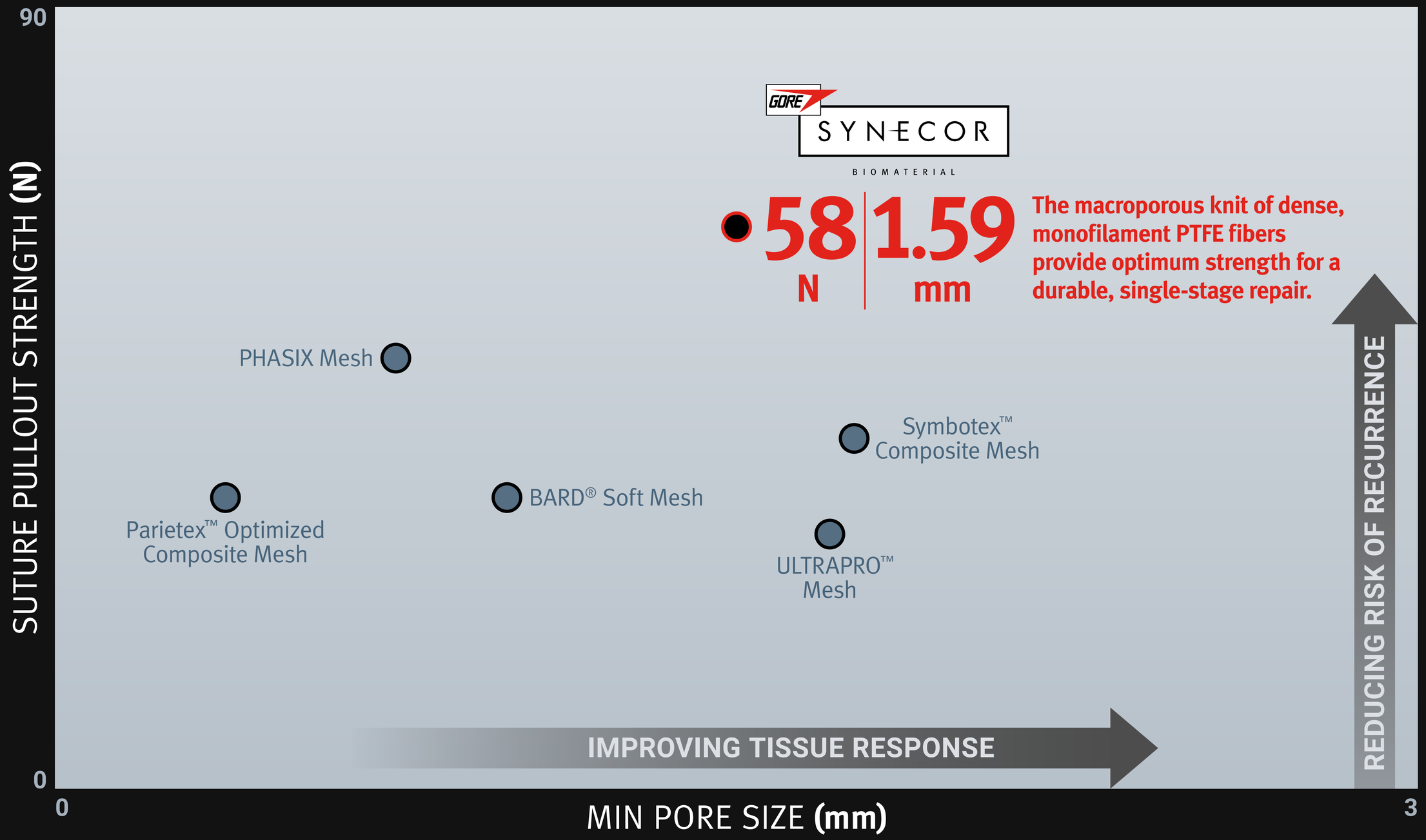

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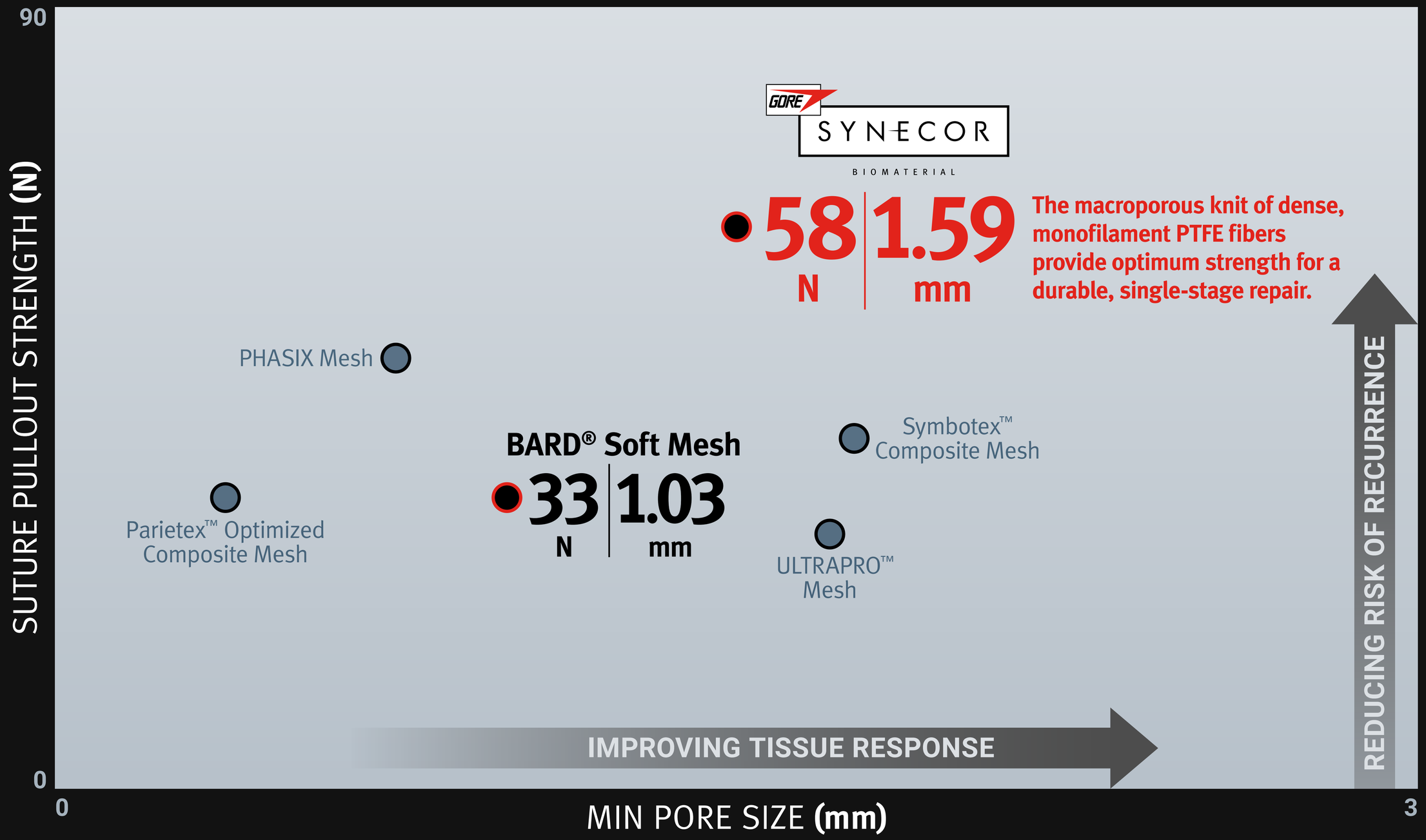

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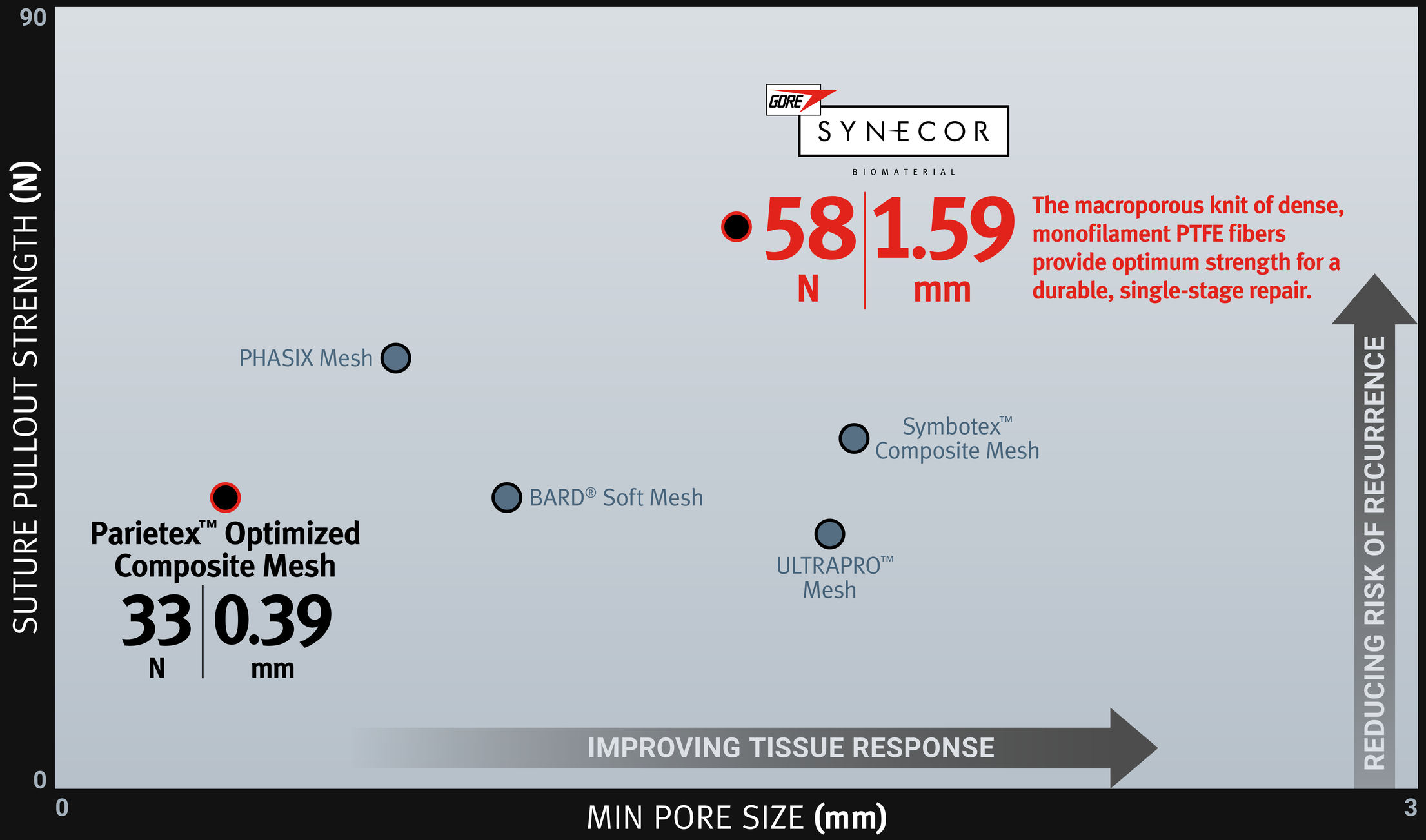

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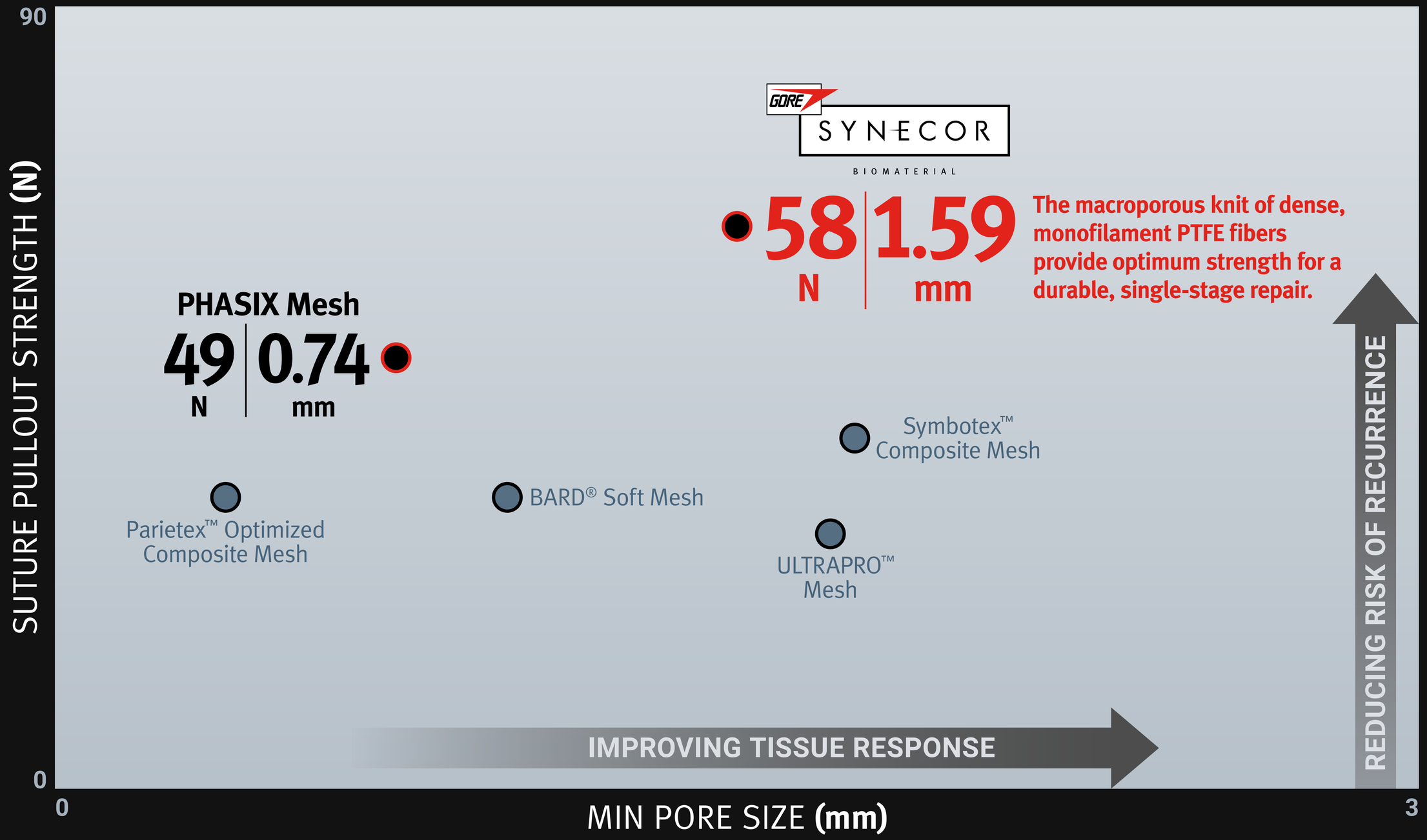

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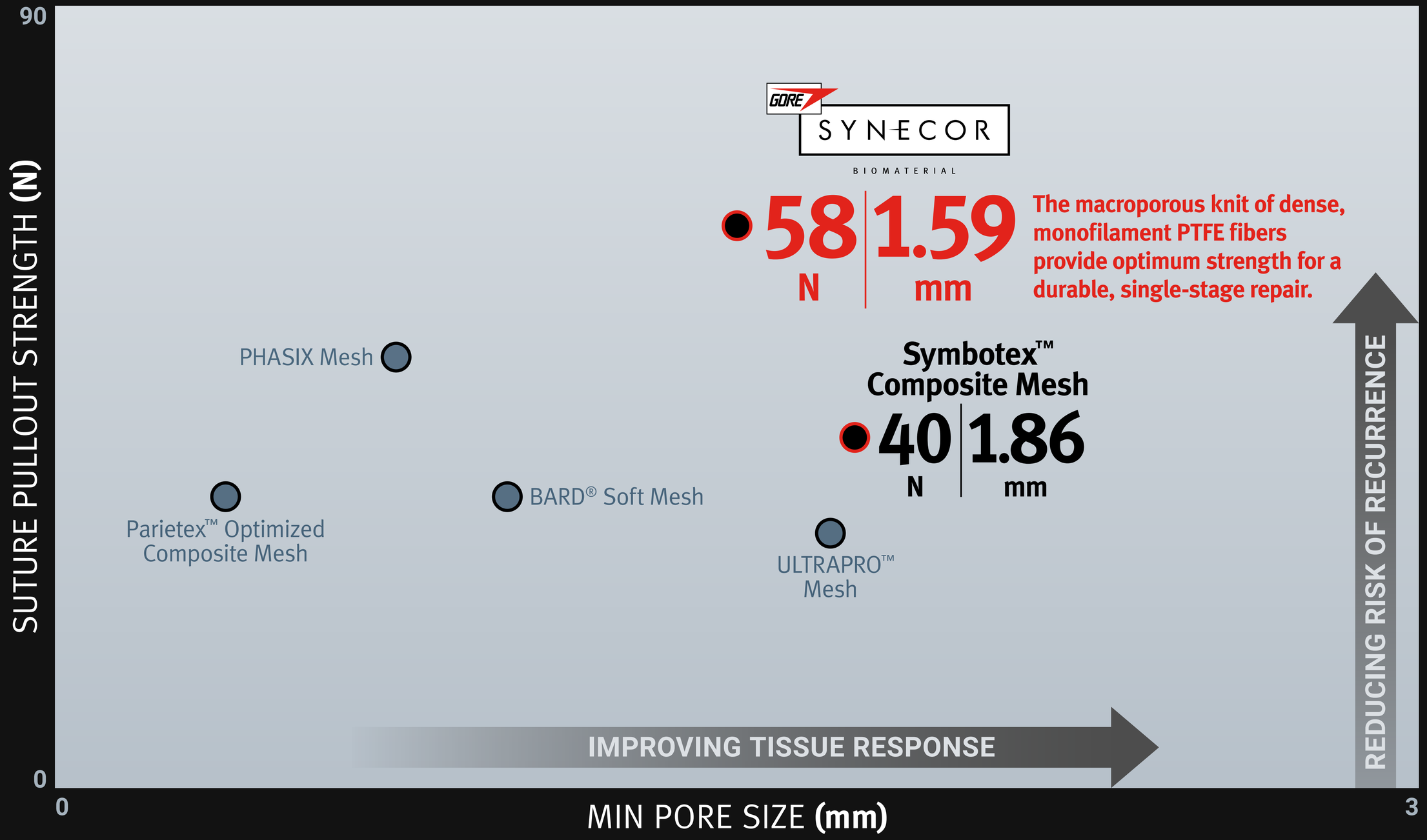

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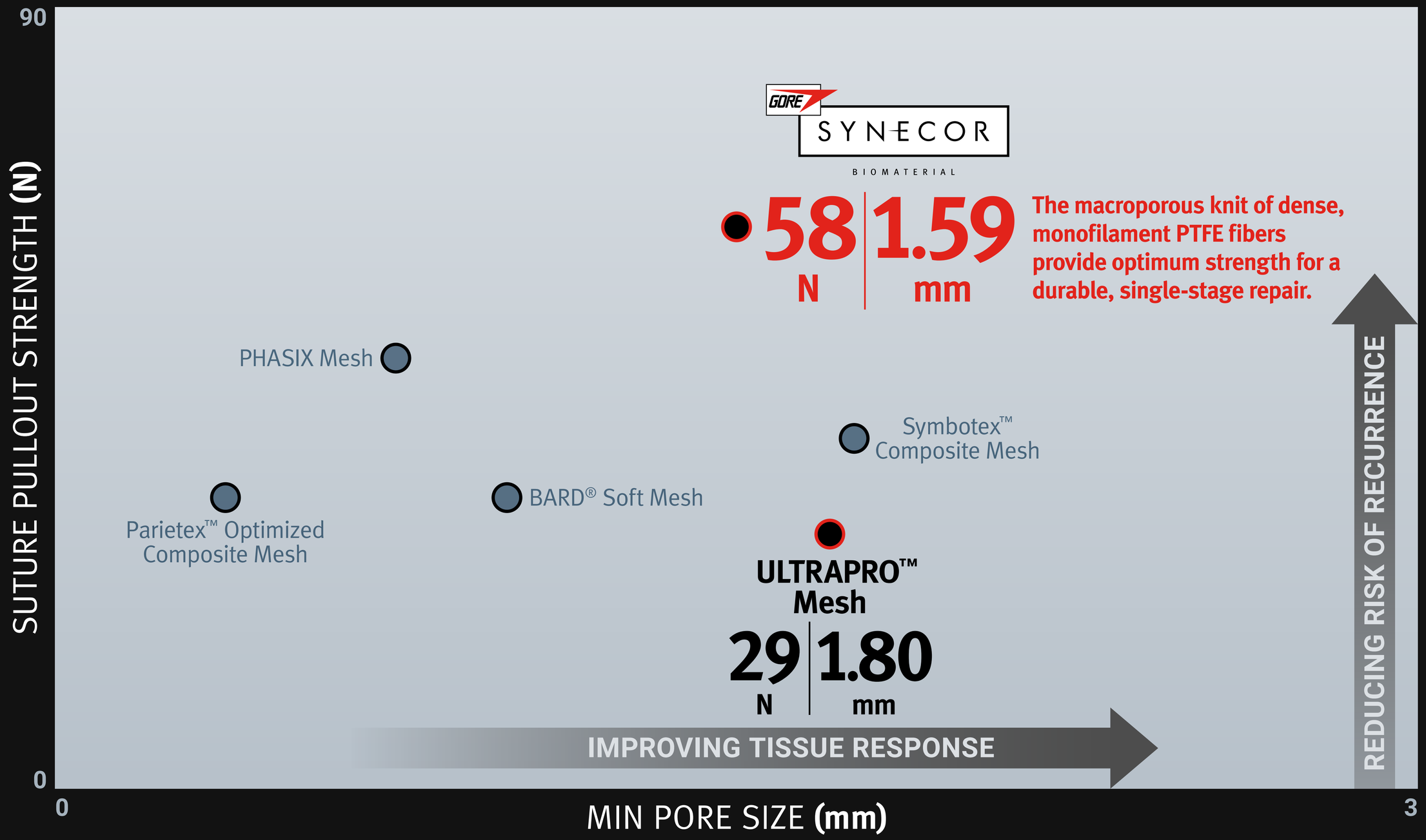

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1. Klinge U, Klosterhalfen B, Conze J, et al. Modified mesh for hernia repair that is adapted to the physiology of the abdominal wall. *European Journal of Surgery* 1998;164(12):951-960.
2. Junge K, Klinge U, Prescher A, Giboni P, Niewiera M, Schumpelick V. Elasticity of the anterior abdominal wall and impact for reparation of incisional hernias using mesh implants. *Hernia* 2001;5(3):113-118.
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4. Zhu LM, Schuster P, Klinge U. Mesh implants: an overview of crucial mesh parameters. *World Journal of Gastrointestinal Surgery* 2015;7(10):226-236.
5. Lake SP, Ray S, Zihni AM, Thompson DM Jr, Gluckstein J, Deeken CR. Pore size and pore shape–but not mesh density–alter the mechanical strength of tissue ingrowth and host tissue response to synthetic mesh materials in a porcine model of ventral hernia repair. *J Mech Behav Biomed Mater.* 2015 Feb;42:186-97.
6. Klinge, U., et al. "Impact of polymer pore size on the interface scar formation in a rat model." *Journal of Surgical Research* 103.2 (2002):208-214.

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