



JY HEALTHCARE GROUP SDN BHD (1185177-T)

Email : info@jy-holding.com

Website : www.jy-holding.com

ENGLISH | 中文

Ref No : MLJC/JYHCG/BG/2026-10/05/12.48

Date : 05 October 2026

GLOBAL HEALTHCARE & BIOMEDICAL INTELLIGENCE

EXCLUSIVE MEDICAL TECHNOLOGY REPORT

Clinical Evidence · Strategic Analysis · Social Impact

WHEN OYSTERS INSPIRE BONE REPAIR

China's "Bone Glue" and the Emerging Science of Bio-Inspired Orthopaedic Materials

Bone-02 | Bioadhesive Material for Fracture Repair

Biomimicry · Biomaterials · Orthopaedics · Clinical Translation

EXECUTIVE OBSERVATION

Some of the most consequential medical innovations do not begin with an attempt to invent a new machine or molecule.

They begin with a question:

How does nature solve a problem that conventional engineering still struggles to solve?

The development of **Bone-02**, a bioadhesive material being developed in China for complex fracture repair, provides a particularly interesting example.

The underlying inspiration comes from marine organisms capable of maintaining strong adhesion in a continuously wet environment.

For orthopaedics, that problem is fundamental.

The human body is not a dry engineering environment. Bone surfaces may be surrounded by blood, tissue fluid and irrigation solution during surgery.

A material capable of producing reliable adhesion under such conditions could potentially provide surgeons with an additional tool for stabilising small or fragmented bone pieces.

Publicly reported information indicates that the development programme began in 2016 and involved more than **50 formulation iterations and hundreds of tests**, followed by animal studies and clinical development. By September 2025, the development team reported that a multicentre clinical study had enrolled more than **150 participants**.

The significance therefore extends beyond the phrase "bone glue".

The more important scientific concept is:

Biology-Inspired Adhesion → Biomaterial Engineering → Clinical Translation



BONE GLUE

I. THE REAL CHALLENGE IS NOT “GLUING BONE”

The phrase “bone glue” is useful for public communication, but it substantially simplifies the underlying engineering problem.

The clinical challenge is:

How can a biomaterial create sufficiently reliable adhesion at a wet biological interface while remaining compatible with living tissue?

A surgical environment may contain:

- Blood
- Tissue fluid
- Saline
- Irregular bone surfaces
- Mechanical loading
- Continuous biological activity

A clinically useful bone adhesive therefore needs to balance several competing requirements:

Adhesion

Setting behaviour

Handling time

Mechanical stability

Biocompatibility

Degradation

Surgical practicality

The objective is not simply to create something that sticks.

It is to create a material that can:

adhere → stabilise → support biological healing → and ultimately integrate into the healing environment.

That is a substantially more demanding engineering problem.

II. WHAT HAS BEEN REPORTED ABOUT BONE-02?

According to publicly available reports from the development team and Chinese official media, Bone-02 was developed through extensive formulation optimisation and testing.

Reported characteristics include:

2–3 minutes

for rapid adhesion in a blood-wet environment.

More than 400 jin

of reported maximum bonding force in testing, equivalent to more than approximately **200 kg**.

Approximately six months

for gradual degradation and absorption as bone healing progresses.

These figures are scientifically interesting. But MLJC applies an important evidence boundary:

Laboratory mechanical performance is not equivalent to long-term clinical benefit.

The ultimate medical value must be established through:

Human clinical data

Long-term follow-up

Safety

Efficacy

Complication rates

Reoperation rates

Functional outcomes

and, ultimately:

Regulatory assessment.

III. WHY COMPLEX FRACTURES MATTER

Modern fracture fixation relies on highly developed technologies, including:

- Plates
- Screws
- Intramedullary nails
- Wires
- Other fixation systems

These remain fundamental tools in orthopaedic surgery.

The challenge becomes more complicated when a fracture produces numerous small or irregular bone fragments.

Examples may include:

Comminuted fractures

Peri-articular fractures

Small bone fragments

Complex anatomical reconstruction

In such situations, individual fixation of every fragment may not always be practical.

The potential role of Bone-02 should therefore not be described as:

“Replacing plates and screws.”

A more scientifically defensible interpretation is:

Bioadhesive augmentation of mechanical fixation

In other words:

Mechanical fixation + biological adhesion

rather than:

Mechanical fixation versus bone adhesive

IV. FROM MECHANICAL FIXATION TO BIOADHESIVE INTERFACES

Traditional orthopaedic engineering largely depends on mechanical stabilisation:

Bone → Hardware → Mechanical Stability

Bioadhesive technology introduces another layer:

Bone → Bioadhesive Interface → Stabilisation → Biological Healing

The two approaches may ultimately become complementary.

That distinction is important because mature medical technology rarely develops by simply replacing an established technology with a new one.

More often:

The new technology expands the surgeon’s available toolkit.

V. WHY THE OYSTER CONNECTION MATTERS

The most intellectually interesting aspect may not be the adhesive itself.

It is the underlying scientific methodology.

Marine organisms have evolved sophisticated strategies for maintaining adhesion in wet environments.



BONE GLUE

The scientific process is therefore:

Observe nature



Understand the underlying mechanism



Identify the engineering principle



Reconstruct the principle in a biomaterial



Test mechanical performance



Evaluate biological compatibility



Conduct clinical research



Pursue regulatory translation

This represents:

**Biomimicry → Biomaterials →
Biomedical Translation**

The oyster is therefore not merely an interesting story.

It represents a broader scientific philosophy:

Nature can function as a library of engineering solutions.

VI. POTENTIAL SOCIAL VALUE

This is where MLJC | JY HCG adds an additional layer beyond conventional technology reporting.

Medical innovation should not ultimately be measured only by:

Patents

Funding

Valuation

Scientific novelty

or

Media attention.

The more important question is:

What could this technology eventually change for patients and society?

SOCIAL VALUE 01

Potential Reduction in Selected Secondary Procedures

If long-term clinical evidence confirms that the material can gradually degrade after supporting bone healing, it could potentially reduce the need for hardware-removal procedures in selected clinical situations.

Potential consequences could include:

Fewer hospital visits

Less anaesthesia exposure

Reduced surgical burden

Lower healthcare utilisation

Lower patient financial and psychological burden

However:

Not all orthopaedic hardware requires removal.

Therefore, Bone-02 should not be described as eliminating second surgery generally.

A more accurate formulation is:

Potentially reducing selected secondary hardware-removal procedures.

SOCIAL VALUE 02

More Precise Management of Complex Fractures

If reliable clinical performance is demonstrated, bioadhesion could potentially help surgeons stabilise small or difficult-to-fix fragments.

The value is therefore not simply:

“The bone sticks together.”

BONE GLUE

The more meaningful objective is:

Better structural reconstruction of complex fractures.

Particularly important areas may include fractures involving:

Joint surfaces

Small fragments

Complex anatomical structures

The ultimate assessment must be based on:

Bone union

Joint function

Pain

Mobility

Complications

and:

Long-term patient outcomes.

SOCIAL VALUE 03

Potential Support for Less-Invasive Surgical Strategies

Publicly reported development information indicates that Bone-02 may be used through relatively small surgical access in appropriate procedures.

If this capability is validated through clinical evidence, it could contribute to a broader trend toward:

Smaller Access

Less Surgical Disruption

More Targeted Fixation

Potentially Faster Recovery

However, these remain areas requiring clinical confirmation rather than assumptions.

SOCIAL VALUE 04

Potential Relevance to Emergency and Disaster Medicine

This may become one of the more strategically interesting long-term applications.

Serious fractures can occur during:

Earthquakes

Traffic disasters

Industrial accidents

Large-scale emergencies

Remote-area incidents

If a future clinical-grade adhesive can demonstrate:

Storage stability

Simple handling

Rapid setting

Reliable performance

and:

Biological safety

its potential utility could extend beyond conventional orthopaedic theatres.

It could eventually become relevant to:

Emergency & Disaster Medicine

This should currently be regarded as a **potential future application**, rather than an established clinical indication.

SOCIAL VALUE 05

A Broader Demonstration of Biomimetic Medicine

Bone-02 sits within a much larger scientific field.

Nature has inspired:

Gecko adhesion → dry and wet surface adhesion

Mussel adhesion → underwater adhesion

BONE GLUE

Spider silk → high-performance fibres
Lotus leaves → superhydrophobic surfaces

Shark skin → fluid dynamics

The deeper concept is:

Biomimetic Engineering

The objective is not to copy nature superficially.

It is to understand:

Why nature works — and whether that principle can be translated into a safe, scalable human technology.

VII. THE REGULATORY SIGNAL

Publicly reported information indicates that Bone-02 entered China's **Innovative Medical Device Special Review Procedure** and received **Breakthrough Device designation from the U.S. FDA** in 2026.

This is an important development because it suggests movement from:

Laboratory Research

toward:

Clinical and Regulatory Translation

But an institutional report must preserve the distinction:

FDA Breakthrough Device designation is not FDA marketing approval.

Likewise:

Entry into an innovation pathway is not equivalent to final regulatory authorisation.

The distinction is essential for maintaining scientific credibility.

VIII. MLJC | JY HCG STRATEGIC ASSESSMENT

Scientific Value

A potentially important application of biomimicry and wet-interface bioadhesion to orthopaedic materials.

Clinical Value

Potentially provides an additional tool for complex and comminuted fracture reconstruction.

Patient Value

If validated, may reduce surgical burden in selected cases and potentially reduce some secondary hardware-removal procedures.

Healthcare-System Value

Potentially improves surgical workflow and reduces selected downstream resource utilisation.

Emergency-Medicine Value

Potential future relevance to trauma and disaster medicine if storage, handling and clinical performance are validated.

Industrial Value

Represents the transition of biomaterial research from laboratory discovery toward clinical and regulatory translation.

Global Value

If supported by robust clinical evidence and regulatory approval, the technology could have potential relevance to international orthopaedic markets.



IX. THE QUESTIONS THAT MATTER

MLJC believes the following questions deserve continued observation:

- 01 — How durable is the adhesion inside the human body?
- 02 — How does performance change under weight-bearing conditions?
- 03 — What are the long-term biological effects of degradation products?
- 04 — Which fracture types benefit most?
- 05 — Where does conventional mechanical fixation remain superior?
- 06 — Does the technology reduce reoperation rates?
- 07 — Does it improve functional outcomes rather than simply radiographic healing?
- 08 — Can the material be manufactured consistently at commercial scale?
- 09 — Can international regulatory standards be satisfied?
- 10 — Can the technology ultimately demonstrate meaningful cost-effectiveness?

These questions should not be viewed as criticism.

They are the normal pathway through which promising science becomes reliable medicine.

X. MLJC EXCLUSIVE PERSPECTIVE

The most important story is not:
“China invented bone glue.”

The more consequential story is:

China is translating biological principles observed in nature into clinically testable biomaterials.

The pathway is:

Nature

↓

Scientific Observation

↓

Biomimicry

↓

Material Engineering

↓

Preclinical Validation

↓

Clinical Research

↓

Regulatory Evaluation

↓

Potential Global Healthcare Application

That pathway is itself an important indicator of scientific maturity.

XI. WHAT COULD THIS MEAN FOR SOCIETY?

If future clinical evidence confirms the technology's safety and effectiveness, the potential societal benefits extend beyond a single orthopaedic product.

They could include:

For Patients

Potentially less invasive treatment and reduced procedural burden in selected cases.

For Surgeons

An additional tool for complex fracture reconstruction.

BONE GLUE

For Hospitals

Potentially more efficient management of selected orthopaedic procedures.

For Healthcare Systems

Potential reductions in selected downstream procedures and resource utilisation.

For Emergency Medicine

A possible new biomaterial platform for trauma applications.

For Scientific Research

Further development of bio-inspired medical materials.

For Industry

A pathway from Chinese biomedical research toward internationally validated medical technology.



XII. MLJC CONCLUSION

A meaningful medical innovation should ultimately answer one question:

Can it make healthcare better?

If Bone-02 ultimately demonstrates robust safety, efficacy and long-term clinical benefit, its significance could extend beyond a new fracture adhesive.

It could demonstrate a much larger principle:

A biological solution observed in nature can become an engineered material, a clinical technology and potentially a scalable healthcare solution.

From an oyster-inspired adhesion mechanism to orthopaedic reconstruction:

Nature

→ Science

→ Engineering

→ Clinical Evidence

→ Regulatory Validation

→ Patient Benefit

→ Social Value

That is the journey that deserves attention.

Not the headline.

Not the hype.

But the evidence.



BONE GLUE

https://www.news.cn/20250910/1df9380a9ed945dca7142431f530a0c8/c.html?utm_source=chatgpt.com

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温医要闻

他们都是温医人！研发全球首款“骨胶水”！

作者：叶少芳 供稿单位：办公室（校友办） 世界温州人家园、潮新闻、浙江新闻、“邵逸夫医院”微信公众号 编辑：王书涵 时间：2025年09月10日

北宋年间，福建泉州的工匠们面临一个难题：跨海而建的洛阳桥墩饱受海水侵蚀。他们并未选择与大海对抗，而是向自然借力：在桥下养殖牡蛎。这种神奇生物所分泌的天然“黏合剂”，让桥墩历经千年潮汐冲刷仍屹立不倒，成就了“养蛎固基”这一世界最早的生物工程奇迹。

千年后的今天，医学科学家们解开了这份古老智慧的密码。1983届校友、浙江大学医学院附属邵逸夫医院（下称“浙大邵逸夫医院”）骨科范顺武教授、2013届校友林贤丰副主任医师团队从牡蛎粘附的奥秘中获取灵感，突破百年医学难题，成功研发出全球首款能够在人体血液环境中实现即时强效黏合的骨胶水材料——“骨02”碎骨黏。



我国自主研发“骨02”胶水
未来“打一针”可实现骨粘合

只要2到3公分这个口子



进行吸收 同化



腕部桡骨“骨02”治疗
3个月后X线片前后对比

最后胶水会全部消失掉



腕部桡骨“骨02”治疗
患者术后3个月

长出我们人体自身的骨头

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MLJC | JY HCG

全球医疗与生物医学情报

独家医疗科技报道

临床证据 · 战略分析 · 社会价值

当牡蛎启发骨修复

中国“骨胶水”与仿生骨科材料正在出现的新路径

骨02 | 骨折黏合生物材料

仿生科学 · 生物材料 · 骨科 · 临床转化

一、真正值得关注的，不只是“骨胶水”

有些医疗创新并不是从制造一种新机器开始。

它可能始于一个非常简单的问题：为什么自然界能够解决一些现代工程仍然难以解决的问题？

“骨02”的研发，就是一个具有代表性的案例。

公开资料显示，研发团队从自然界湿环境黏附机制获得启发，并自2016年起持续开展骨黏合材料研究，经过50余种配方迭代和数百次测试，进一步开展动物实验及临床研究。

截至2025年公开报道，相关多中心临床研究已入组150余例受试者。

因此，“骨02”的真正意义并不只是：

把骨头“粘起来”。

更值得关注的是其背后的技术路线：自然启发 → 仿生设计 → 材料工程 → 临床转化

二、真正困难的，从来不是“黏住”

“骨胶水”是公众容易理解的名称，但真正的医学工程问题远比这个复杂。

人体不是干燥的工程实验室。

手术环境可能同时存在：

- 血液
- 组织液
- 生理盐水
- 不规则骨面
- 持续机械负荷
- 复杂的生物环境

因此，一种真正具有临床意义的骨黏合材料必须同时解决：

黏附能力

固化速度

医生操作时间

力学稳定性

生物相容性

降解过程

手术操作便利性



骨胶水

真正需要解决的不是：
“能不能粘？”

而是：

能否在人体湿润环境中可靠黏附，并在骨骼愈合过程中保持合理的功能，最终安全地进入人体代谢与组织修复过程？这才是核心科学问题。

三、目前公开资料显示了什么？

根据研发团队及公开报道：

约2 - 3分钟

可在血液浸润的湿性环境中实现快速黏合。

超过400斤

公开资料报道的最大黏合拉力，约相当于200公斤以上。

约6个月

材料可随着骨愈合过程逐步降解、吸收。这些数据具有明显的工程价值。

但 MLJC 必须明确划出一道边界：

实验室力学性能 $\neq$ 人体长期临床疗效。

真正的医疗价值最终必须经过：

人体临床研究

长期随访

安全性评价

疗效评价

并发症统计

再手术率

功能恢复

以及：

监管机构评价

来验证。

四、为什么复杂粉碎性骨折值得特别关注？

现代骨科已经拥有成熟的：

•钢板

•螺钉

•髓内钉

•钢丝

•其他内固定系统

这些技术仍然是骨折治疗的重要基础。

但在严重粉碎性骨折中，情况会复杂得多。

例如：

骨块数量较多

骨块尺寸较小

关节周围复杂骨折

部分骨片难以单独固定

这时候，传统机械固定可能面临操作空间和固定方式方面的限制。

因此，“骨02”不应该简单描述为：

“取代钢板和螺钉。”

更专业的理解应该是：

为传统机械固定增加一种生物黏合工具。

也就是：

机械固定 + 生物黏合

而不是：

机械固定 vs 骨胶水

骨胶水

五、从“机械固定”走向“生物黏合界面”

传统骨科治疗主要依赖：

骨骼 → 内固定器械 → 机械稳定

而生物黏合材料增加了一层新的可能：

骨骼 → 生物黏合界面 → 稳定 → 骨愈合

未来真正成熟的骨科技术，很可能不是某一种技术完全取代另一种。

而是：

不同技术形成互补。

这也是医疗技术发展的常见规律。

六、为什么“牡蛎”特别值得关注？

“牡蛎”并不是一个简单的新闻噱头。

真正值得关注的是背后的：

仿生科学

自然界已经演化出大量高效的工程解决方案。

例如：

壁虎 → 黏附技术

贻贝 → 湿环境黏附

蜘蛛 → 高性能纤维

荷叶 → 超疏水表面

鲨鱼皮 → 流体动力学

而骨02所代表的方向，则进一步探索：

湿环境中的生物黏附。

真正的科学过程并不是简单模仿自然。

而是：

观察自然

↓

理解机制

↓

提取规律

↓

重构材料

↓

实验验证

↓

动物研究

↓

人体临床

↓

监管转化



骨胶水

七、MLJC特别关注：这项技术能够为社会带来什么？

医疗科技真正的价值，不应该只用：

专利数量

融资金额

市场估值

论文数量

或者：

媒体热度

衡量。

最终必须回答：

这项技术能够为患者、医生、医院和社会创造什么实际价值？

八、社会价值之一：有望减少部分患者的二次手术负担

如果未来长期临床研究能够确认材料在完成骨修复后能够安全、稳定地逐渐降解吸收，那么在特定适用场景下，有可能减少部分传统内固定物取出的需求。

潜在意义包括：

减少再次住院

减少再次麻醉

减少再次手术

降低部分感染及手术相关风险

减轻患者经济与心理负担

但必须保持专业准确性：

并非所有钢板、螺钉等内固定器械都需要二次取出。

因此不能简单宣传：

“骨02可以避免所有二次手术。”

更准确的表达应该是：

有望在部分适用病例中减少二次内固定物取出手术。

九、社会价值之二：为复杂骨折提供新的治疗工具

如果临床研究最终证明其能够稳定固定细小骨片，那么它可能为复杂骨折治疗增加一种新的选择。

真正的价值不是：

“把骨头粘起来。”

而是：

帮助医生更精细地完成骨结构重建。

尤其值得关注：

关节面骨折

粉碎性骨折

细小骨片

复杂解剖区域

最终仍需观察：

骨愈合率

关节功能

疼痛

活动能力

并发症

长期稳定性

十、社会价值之三：推动更加精细的骨科手术

公开资料显示，“骨02”可以通过较小切口进行相关操作。

如果未来临床研究进一步证实其价值，这类材料可能推动部分骨科手术向：

更小切口

骨胶水

更少组织损伤
更精准的骨片固定
更高效的术后恢复
方向发展。

但这些属于需要临床证据持续验证的潜在价值。

十一、社会价值之四：未来可能进入急救与灾害医学

这一点值得 MLJC 长期观察。

严重骨折可能发生在：

地震

交通事故

工业事故

大型灾害

偏远地区

重大公共安全事件

如果未来能够进一步证明：

储存稳定

操作简单

快速固化

运输方便

临床安全

那么这种材料的潜在应用场景可能从：

骨科手术室

进一步扩展至：

急救医学与灾害医学

目前仍应将其定义为：

潜在未来应用

而不是已经确立的临床适应症。

十二、社会价值之五：仿生医学可能成为下一代医疗材料的重要来源
骨02真正值得全球医疗产业观察的地方，也许并不局限于骨科。

它体现了一种更大的研发逻辑：

Nature as a Scientific Database

自然界本身可能成为：

新材料

新药物

医疗器械

组织工程

再生医学

的重要灵感来源。

这意味着未来医疗创新可能越来越多地发生在：

Biology × Materials Science
× Engineering × Medicine
的交叉区域。

十三、监管进展：从科研走向临床转化

公开资料显示，2026年“骨02”进入中国创新医疗器械特别审查程序，并获得美国 FDA Breakthrough Device designation。

这是值得关注的监管信号。

因为它意味着技术正在从：

Laboratory Research

向：

Clinical & Regulatory Translation

推进。

骨胶水

但必须特别强调：

FDA Breakthrough Device designation $\neq$ FDA批准上市。

同样：

进入创新医疗器械特别审查程序 $\neq$ 已获得最终上市许可。

这两个边界必须始终保持清晰。

十四、MLJC | JY HCG 战略评估 科学价值

仿生科学与生物材料工程结合，
为人体湿环境下的骨黏合提供新的
技术路径。

临床价值

有望为复杂及粉碎性骨折提供传统
机械固定之外的辅助工具。

患者价值

如果长期临床证据得到验证，在
部分适用病例中可能降低治疗创伤
及二次内固定物取出的需求。

医疗系统价值

潜在减少部分后续手术和医疗资源
占用。

急救医学价值

未来可能具有创伤和灾害医学应用
潜力。

产业价值

体现中国生物材料研究从实验室
发现走向临床与监管转化的能力。

全球价值

如果未来获得充分临床证据及国际
监管批准，具备进一步进入国际骨
科材料市场的潜在可能。

十五、MLJC持续追踪的十个问题

01 | 人体内长期黏附能力究竟如何？

02 | 在长期承重环境下能否保持稳定？

03 | 降解产物对人体的长期影响是什么？

04 | 哪一种骨折类型最能体现临床价值？

05 | 哪些病例仍然必须依赖传统机械固定？

06 | 能否真正降低再手术率？

07 | 是否能够改善患者长期功能，而不仅仅是影像学骨愈合？

08 | 能否实现大规模、稳定、一致的工业化生产？

09 | 能否通过国际监管体系的长期验证？

10 | 最终是否具有明确的医疗经济学优势？

这些问题不是对创新的否定。

恰恰相反：

这是一个医疗技术从“令人兴奋”
走向“真正可靠”必须经历的过程。



骨胶水

十六、MLJC 独家观察
真正值得记录的，不是：
“中国发明了骨胶水。”

而是：

中国科研团队正在尝试把自然界的生物黏附机制，转化为能够进入人体、接受临床验证并进入监管体系的医疗材料。

其完整路径可以概括为：

自然



科学观察



仿生设计



材料工程



临床前研究



人体临床



监管评价



潜在全球医疗应用

这条路径本身，就是中国医疗科技转化能力值得国际社会持续观察的地方。



十七、MLJC | JY HCG 最终社会价值判断

一项真正有意义的医疗创新，最终必须回答：

它能否让医疗变得更安全、更有效、更可及？

如果未来充分的临床证据能够验证“骨02”的安全性、有效性和长期稳定性，其潜在社会价值可能包括：

对患者

减少部分治疗创伤及特定情况下的二次手术负担。

对医生

增加复杂骨折重建的治疗工具。

对医院

改善部分复杂骨折治疗流程。

对医疗系统

潜在减少部分后续医疗资源消耗。

对急救体系

未来可能增加创伤医学材料选择。

对科研

推动仿生生物材料进一步发展。

对产业

推动中国医疗材料从科研成果向国际临床产品转化。



骨胶水

十八、MLJC 最终结论

真正重要的并不是：

“牡蛎发明了骨胶水。”

而是：

人类从自然界发现了一种解决湿环境黏附问题的机制，并尝试将其转化为可以服务于人体骨修复的科学技术。

从牡蛎到骨科：

Nature

自然

↓

Science

科学

↓

Engineering

工程

↓

Clinical Evidence

临床证据

↓

Regulatory Validation

监管验证

↓

Patient Benefit

患者获益

↓

Social Value

社会价值

这才是值得长期记录的完整故事。



手术中切口照片

术前X线片

术后3个月X线片



骨胶水

https://www.news.cn/20250910/1df9380a9ed945dca7142431f530a0c8/c.html?utm_source=chatgpt.com

https://www.hzzx.gov.cn/cshz/content/2025-09/10/content_9079937.htm?utm_source=chatgpt.com

https://news.wmu.edu.cn/show/2/42197.html?utm_source=chatgpt.com

https://ssw.gxrb.com.cn/json/interface/epaper/index.php?code=003&date=2025-10-01&name=ddshb&xuhao=1&utm_source=chatgpt.com

https://origobio.com.cn/newsinfo/10798069.html?utm_source=chatgpt.com

https://health.baidu.com/m/detail/ar_9740742027893081169?utm_source=chatgpt.com



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温医要闻

他们都是温医人！研发全球首款“骨胶水”！

作者：叶少芳 供稿单位：办公室（校友办） 世界温州人家园、潮新闻、浙江新闻、“邵逸夫医院”微信公众号 编辑：王书涵 时间：2025年09月10日

北宋年间，福建泉州的工匠们面临一个难题：跨海而建的洛阳桥墩饱受海水侵蚀。他们并未选择与大海对抗，而是向自然借力：在桥下养殖牡蛎。这种神奇生物所分泌的天然“黏合剂”，让桥墩历经千年潮汐冲刷仍屹立不倒，成就了“养蛎固基”这一世界最早的生物工程奇迹。

千年后的今天，医学科学家们解开了这份古老智慧的密码。1983届校友、浙江大学医学院附属邵逸夫医院（下称“浙大邵逸夫医院”）骨科范顺武教授、2013届校友林贤丰副主任医师团队从牡蛎粘附的奥秘中获取灵感，突破百年医学难题，成功研发出全球首款能够在人体血液环境中实现即时强效黏合的骨胶水材料——“骨02”碎骨黏。



我国自主研发“骨02”胶水
未来“打一针”可实现骨粘合

只要2到3公分这个口子



进行吸收 同化



腕部桡骨“骨02”治疗
3个月后X线片前后对比

最后胶水会全部消失掉



腕部桡骨“骨02”治疗
患者术后3个月

长出我们人体自身的骨头

JYInternationalEducation jy_international.education @JYHealthcareGroupSdnBhd jy_healthcare.edu



<https://whatsapp.com/channel/0029Vb8UcbQDjiOiG9fGdX0t>



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