

State of Peptide Research 2026

Evidence, approval and clinical trials for 56 peptides

PUBLISHED

12 October 2026

TRIAL SNAPSHOT

ClinicalTrials.gov, 12 October 2026

PEPTIDES COVERED

56 profiled · 51 with trial counts

LICENCE

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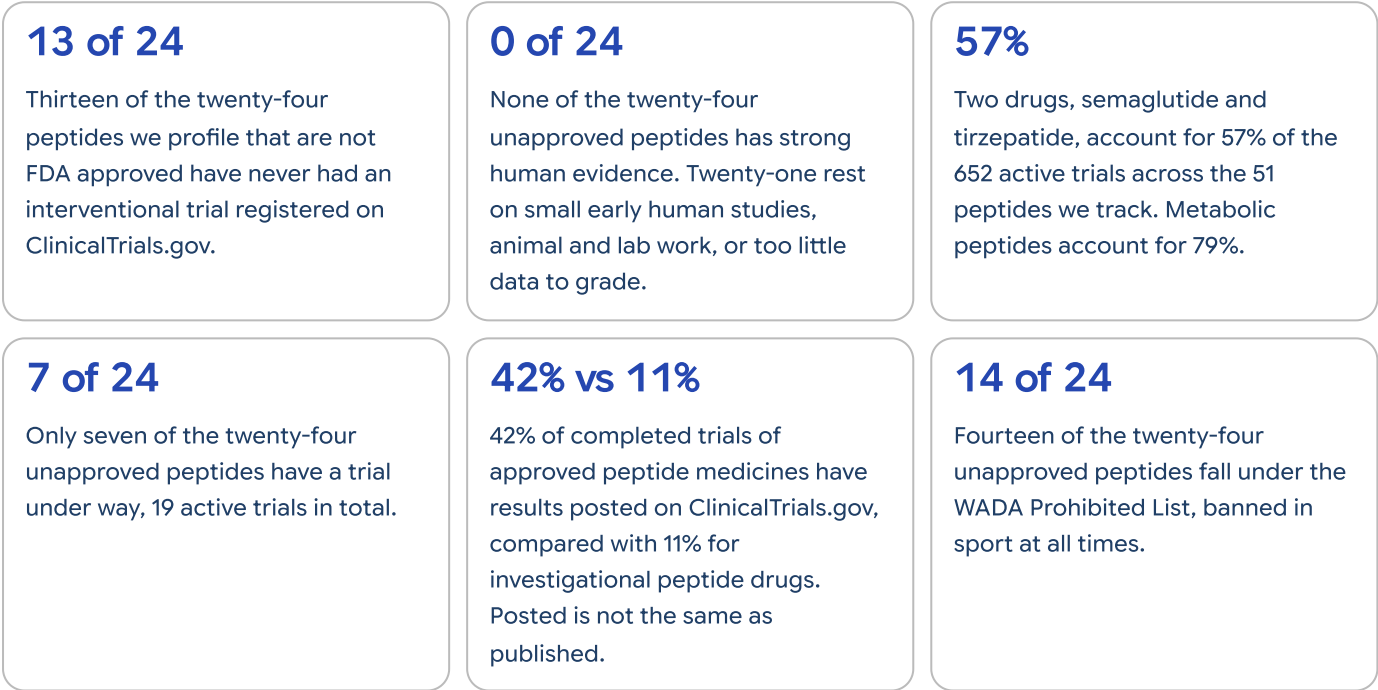
<https://insidepeptides.org/data/state-of-peptide-research-2026/>

State of Peptide Research 2026

How strong is the evidence for 56 widely discussed peptides, which are approved, and which are actually being tested in people? Our grades and a ClinicalTrials.gov snapshot, in one place.

Version 1.1, published 12 October 2026. Trial counts from ClinicalTrials.gov, fetched 12 October 2026. 56 peptides · 51 with trial counts · data under CC BY 4.0.

Key findings



Why we made this report

Peptides get far more attention online than most research topics, and the attention is uneven. Some are approved medicines tested in thousands of people; others are sold as "research chemicals" on the strength of animal studies. Readers, clinicians and journalists rarely see both groups measured the same way.

This report puts every peptide we profile on one scale: how strong the human evidence is, whether FDA has approved it, whether it is banned in sport, and how much it is actually being tested. The figures are generated from the same data as our [evidence grid](#) and the downloadable files, so they can be checked line by line.

Approval and evidence are different questions

Every profile carries two separate labels. The [evidence grade](#) describes how much good human research supports the peptide's main uses. The U.S. status records whether FDA has approved it as a medicine. The table shows how the 56 peptides fall across both.

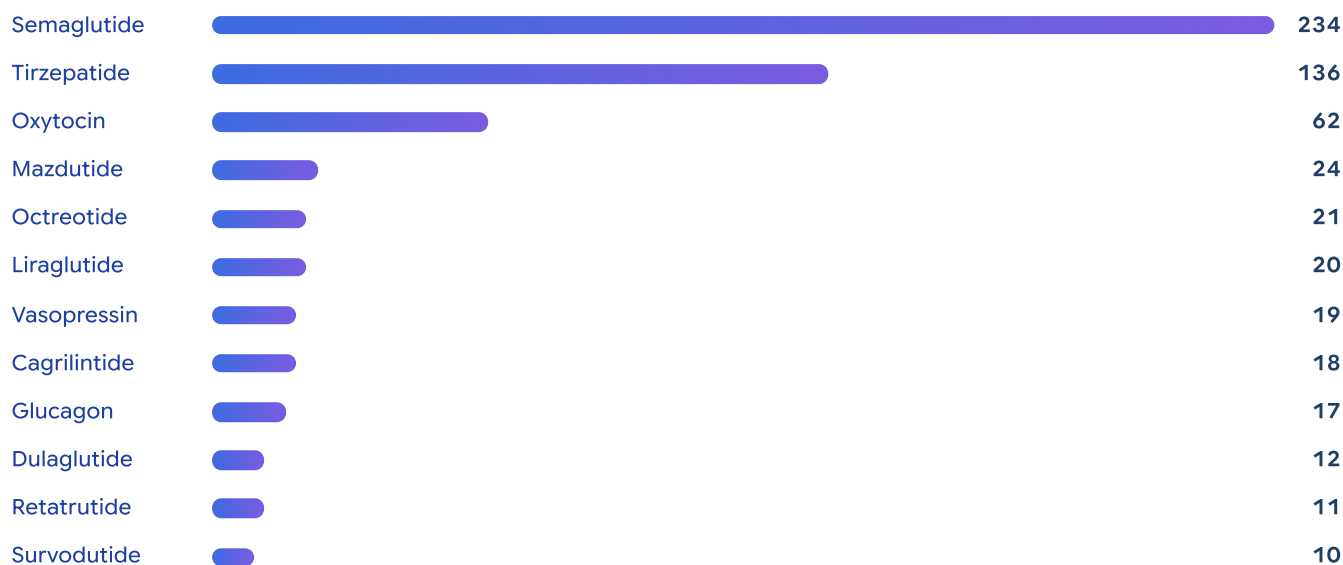
EVIDENCE GRADE	FDA-APPROVED MEDICINE	INVESTIGATIONAL	NOT FDA APPROVED	TOTAL
Strong Evidence	17 Tesamorelin, Bremelanotide, Semaglutide, Tirzepatide, Liraglutide, Exenatide, Pramlintide, Octreotide, Lanreotide, Teriparatide, Abaloparatide, Oxytocin, Vasopressin, Glucagon, Insulin, Dulaglutide, Lixisenatide	3 GLP-1, GIP, Ghrelin	0	20
Moderate Evidence	3 Setmelanotide, Afamelanotide, Elamipretide	6 Peptide YY, Retatrutide, Cagrilintide, Survodutide, Mazdutide, VIP (Vasoactive Intestinal Peptide)	3 Sermorelin, Gonadorelin, Thymosin Alpha-1	12
Early Human Evidence	0	3 Pemvidutide, Larazotide, Kisspeptin	14 GHK-Cu, CJC-1295, Ipamorelin, AOD-9604, LL-37, Semax, Selank, Matrixyl, Argireline, DSIP, Melanotan II, GHRP-6, GHRP-2, Hexarelin	17
Preclinical Evidence	0	0	6 BPC-157, TB-500, MOTS-c, KPV, Epitalon, Dihexa	6
Insufficient Evidence	0	0	1 SNAP-8	1
Total	20	12	24	56

- **Approval does not always mean large trials.** Setmelanotide, Afamelanotide and Elamipretide are approved with a moderate grade, typically for rare conditions where trials are necessarily small.
- **The unapproved peptides with the best evidence have a medical past.** The only three with a moderate grade, Sermorelin, Gonadorelin and Thymosin Alpha-1, were once FDA-approved medicines or are approved in other countries. None of the unapproved peptides has a strong grade.
- **Native hormones are graded on physiology.** GLP-1, GIP and ghrelin have strong evidence for what they do in the body, but they are not medicines themselves, so they count as investigational.

Where the clinical trials are

Across the 51 peptides we track, ClinicalTrials.gov lists 652 active interventional trials: recruiting, about to start, or running. They are heavily concentrated: semaglutide and tirzepatide account for 57%, and metabolic peptides for 79%.

ACTIVE TRIALS, TOP 12 PEPTIDES



Every peptide's trials, with phase, sponsor and completion dates, are in the [clinical trial tracker](#).

The twenty-four unapproved peptides

These are the peptides most often sold online as "research chemicals" or discussed for healing, anti-ageing, muscle or cognition. Thirteen have no registered interventional trial at all. Seven have a trial under way: BPC-157 (2), TB-500 (1), GHK-Cu (1), MOTS-c (1), Melanotan II (1), Gonadorelin (3) and Thymosin Alpha-1 (10).

One sponsor stands out. Hudson Biotech registered five of these nineteen active trials, one each for BPC-157, TB-500, GHK-Cu, MOTS-c and Melanotan II. A registered trial is a plan, not a result, and none of these has finished.

PEPTIDE	EVIDENCE GRADE	TRIALS EVER REGISTERED	ACTIVE	COMPLETED (RESULTS POSTED)	WADA
Thymosin Alpha-1 Immune	• Moderate Evidence	37	10	14 (1)	—
Gonadorelin Reproductive	• Moderate Evidence	9	3	4 (2)	<u>S2</u>
Sermorelin Growth Hormone Axis	• Moderate Evidence	0	0	0	<u>S2</u>
Argireline Skin & Hair	• Early Human Evidence	3	0	2 (0)	—
Ipamorelin Growth Hormone Axis	• Early Human Evidence	2	0	2 (0)	<u>S2</u>
LL-37 Immune	• Early Human Evidence	2	0	1 (1)	—
CJC-1295 Growth Hormone Axis	• Early Human Evidence	1	0	0	<u>S2</u>
GHK-Cu Skin & Hair	• Early Human Evidence	1	1	0	—
Melanotan II Skin & Hair	• Early Human Evidence	1	1	0	<u>S0</u>

PEPTIDE	EVIDENCE GRADE	TRIALS EVER REGISTERED	ACTIVE	COMPLETED (RESULTS POSTED)	WADA
AOD-9604 Metabolic	• Early Human Evidence	0	0	0	<u>S2</u>
DSIP Neuropeptide	• Early Human Evidence	0	0	0	—
GHRP-2 Growth Hormone Axis	• Early Human Evidence	0	0	0	<u>S2</u>
GHRP-6 Growth Hormone Axis	• Early Human Evidence	0	0	0	<u>S2</u>
Hexarelin Growth Hormone Axis	• Early Human Evidence	0	0	0	<u>S2</u>
Matrixyl Skin & Hair	• Early Human Evidence	0	0	0	—
Selank Neuropeptide	• Early Human Evidence	0	0	0	—
Semax Neuropeptide	• Early Human Evidence	0	0	0	—
BPC-157 Tissue repair research	• Preclinical Evidence	2	2	0	<u>S0</u>
MOTS-c Longevity	• Preclinical Evidence	2	1	1 (0)	<u>S4</u>
TB-500 Tissue repair research	• Preclinical Evidence	1	1	0	<u>S2</u>
Dihexa Neuropeptide	• Preclinical Evidence	0	0	0	—
Epitalon Longevity	• Preclinical Evidence	0	0	0	<u>S0</u>
KPV Immune	• Preclinical Evidence	0	0	0	<u>S0</u>
SNAP-8 Skin & Hair	• Insufficient Evidence	0	0	0	—

- **No registered trial is not the same as never tested.** ClinicalTrials.gov opened in 2000 and registration became routine later, so earlier human studies are missing. [AOD-9604](#) is the clearest case: it has no registered trial, yet FDA's 2024 review describes a 536-person obesity trial that found no significant weight loss. A zero here can hide negative human evidence as well as none; each profile lists the human studies we found.
- **Counts cover the compound itself, not related products.** Trials of full-length thymosin beta-4 medicines (such as RGN-259 eye drops) are not counted for [TB-500](#), and trials of the prodrug fosgonimeton are not counted for [dihexa](#). Earlier editions of this report included them.

How often results are posted

Registries record plans more reliably than outcomes. Of the completed trials in our snapshot, the share with results posted on ClinicalTrials.gov itself:

U.S. STATUS	PEPTIDES	TRIALS EVER REGISTERED	COMPLETED	RESULTS POSTED	STOPPED EARLY OR WITHDRAWN
FDA-approved medicine	19	2,912	1,820	772 (42%)	238

U.S. STATUS	PEPTIDES	TRIALS EVER REGISTERED	COMPLETED	RESULTS POSTED	STOPPED EARLY OR WITHDRAWN
Investigational	8	201	122	14 (11%)	8
Not FDA approved	24	61	24	4 (17%)	6

Posted results are not the same as published results. Many trials report in journals instead, U.S. rules require posting only for certain trials, and recent trials may still be inside the reporting window. Read the gap as a reason to check the journal record, not as proof that results were hidden.

Banned in sport

Eighteen of the 56 peptides fall under a section of the World Anti-Doping Agency's Prohibited List, including fourteen of the twenty-four unapproved ones: BPC-157, TB-500, MOTS-c, CJC-1295, Ipamorelin, AOD-9604, KPV, Epitalon, Melanotan II, Sermorelin, GHRP-6, GHRP-2, Hexarelin and Gonadorelin. Our guide to [WADA peptide rules](#) explains the S0 and S2 sections.

Methodology and limitations

- **Which peptides.** The 56 peptides with a published Inside Peptides profile: approved medicines, drugs in development and unapproved peptides that are widely discussed or sold. It is not a random sample of all peptides.
- **Evidence grades** follow the [Inside Peptides Evidence Scale \(IPES\) version 1.0](#), applied under our [methodology](#). A grade applies to the main uses studied, not to every claim made about a peptide.
- **U.S. status** is FDA approval status. Peptides approved elsewhere, or approved in the past and since discontinued, count as not FDA approved.
- **Trial counts** come from the ClinicalTrials.gov API v2, interventional studies only, matched on intervention names, brand names and development codes listed in the [tracker](#). Trials under other code names can be missed; combination trials are included. Insulin, GLP-1, GIP, Ghrelin and Peptide YY are left out because their names match thousands of unrelated studies.
- **Snapshot.** Counts reflect the registry on 12 October 2026 and change daily. We refresh them before each update of this report.
- **Reproducing the counts.** The trial-level download lists every active trial's NCT number, and the JSON dataset carries the exact ClinicalTrials.gov query expression used for each peptide, so anyone can rerun the search.
- **Corrections.** If you find an error, tell us through our [corrections policy](#). Changes to this report are logged below.

Corrections and changes

This is version 1.1 of the 2026 report, built on evidence methodology 1.0.

Reader audit. A reader review of the first edition on 12 October 2026 identified three errors, all corrected in version 1.1 and listed below. We welcome this kind of checking: if you find an error in any figure, grade or source, tell us through the [corrections policy](#) and we will correct it and log the change here, with credit if you want it.

- **2026-10-12, version 1.0.** First edition published.

- **2026-10-12, version 1.1.** AOD-9604 corrected after a reader audit: its WADA section is S2.2.3 (growth hormone fragments), not S0, and its grade is now early human evidence to reflect the negative obesity trials described in FDA's 2024 briefing document. MOTS-c corrected to WADA S4.4.1. Trial matching narrowed so that full-length thymosin beta-4 medicines no longer count as TB-500 trials and the prodrug fosgonimeton no longer counts as dihexa; the trial-level download and per-peptide query expressions were added.

Use the data

The full dataset, one row per peptide, is free to reuse under [CC BY 4.0](#) with a credit to Inside Peptides and a link to this page. Field definitions are on the [data page](#).

Cite or link to this page

To cite a single finding, link to it with the # beside it.

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About this document

This PDF is generated from the live page at <https://insidepeptides.org/data/state-of-peptide-research-2026/> and carries the same figures and sources. The web page is the version of record and is updated when the data changes; check it for the latest edition and the corrections log.

Data files

The dataset behind this report (one row per peptide) and the trial-level file (one row per active trial) are available in CSV, JSON and Excel at <https://insidepeptides.org/data/>.

How to cite

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