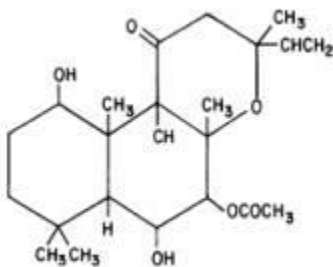


Drive

DRIVE is a synergistic blend of pharmaceutical-strength constituents that is designed to promote a highly anabolic state through a variety of different mechanisms. DRIVE combines cGMP and cAMP synergism, increased thyroid activity, a distinct AI effect, SHBG inhibition, endurance enhancement, elevated testosterone and luteinizing hormone activity and a marked improvement in the testosterone/estrogen and testosterone/cortisol ratios. DRIVE can be used as:

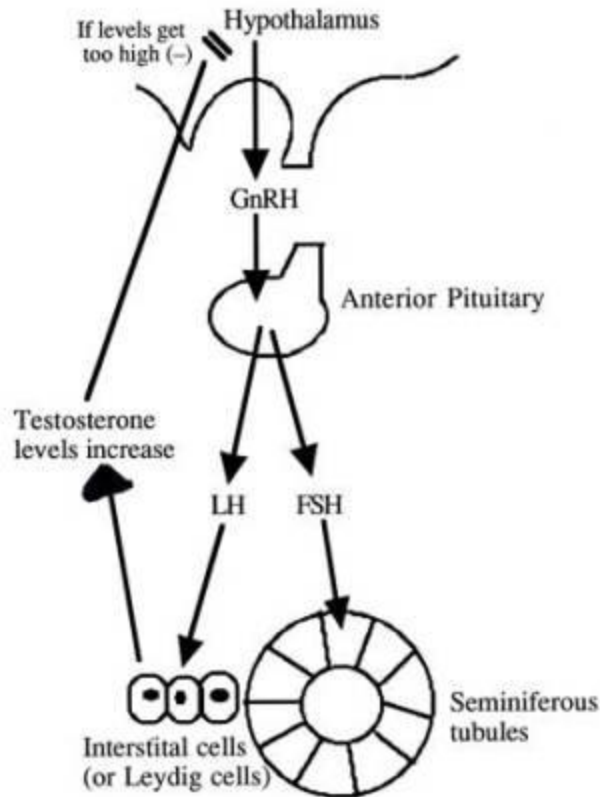
- A stand-alone anabolic to increase lean body mass, endurance, strength and speed
- In conjunction with RPM™ for increased gains in lean body mass, fat reduction, and energy
- For post-cycle therapy where the user actually GAINS lean mass instead of losing it when coming off anabolics.

DRIVE is a truly one-of-a-kind product and contains only the highest quality clinically proven doses for maximum effectiveness. The **StAR Anaplex™** in DRIVE contains **forskolin** (7 beta-acetoxy-8, 13-epoxy-1 alpha,6 beta, 9 alpha-trihydroxy-labd-14-ene-11-one) and **icariin** (4H-1Benzopyran-4-one, 3-((6-deoxy-a-L-mannopyranosyl)oxy)-7-(B-D-glucopyranosyloxy)-5-hydroxy-2-(4-methoxyphenyl)-8-(3-methy-2-butenyl)). These two potent **phytochemical** (plant-derived) compounds have some SERM-like (selective estrogen receptor modulator) and also demonstrate SARM-like (selective androgen receptor modulating) properties, providing pronounced benefits on muscle mass, strength, bone, physical DRIVE and sexual function. Published research on icariin and forskolin support these hypotheses, however some experts are still divided as to the ability of these compounds to exert their effects on androgen and estrogen receptor modulation and tissue-specificity. Several studies further exploring these activities are currently underway that are sure to shed additional light on the many useful properties of these compounds.



Forskolin has been the subject of large amounts of research in the health and wellness field since the early 1980s. Scientific studies have found that along with increasing thyroid activity and thermogenesis, forskolin is also a potent anabolic. This occurs primarily through elevation of **3,5 cyclic adenosine monophosphate** (cAMP); a second messenger important in hormone signaling. cAMP elevation is a crucial piece of the puzzle in creating an anabolic and thermogenic state, and forskolin is one of the best compounds available for triggering dramatic increases in cAMP levels. One study (Bristow et al, 1984) showed that forskolin was able to increase cAMP levels 4.82 times more than a placebo. Another study (Litosch, 1982) demonstrates that forskolin can raise cAMP levels in fat cells. This is important because it demonstrates the ability of the compound to enhance lipolysis; meaning that forskolin exerts powerful fat-burning effects as well as being a potent anabolic agent; plus forskolin can also enhance endurance capacity as well. Another added bonus of forskolin is that it increases cAMP independently of epinephrine, thus providing increased energy without the need to take any type of traditional stimulant.

HPTA and Testosterone



So how does cAMP increase anabolism? cAMP is classified as a second messenger, meaning that it exerts its effects by acting in a manner **secondary and in response to** a first messenger signaling molecule. When a first messenger signaling molecule binds to a cell surface, another secondary (hence “second” messenger) pathway is activated that increases cAMP production. Increased cAMP production is responsible for the activation of protein kinase A, which is an enzyme that has positive effects androgen receptor binding **even in the absence of other androgens**. cAMP also is a signal for steroidogenesis (testosterone production) in the Leydig cells of the testes, by increasing levels of **steroidogenic acute regulatory protein (StAR)**. Increased StAR production is noteworthy, because it is a Leydig cell cholesterol transfer protein and provides the building blocks for testosterone synthesis.

StAR activation is necessary for the stimulation of steroidogenic enzymes involved in the transfer of cholesterol to testosterone. By increasing the intermediary between these two processes, a resulting positive shift in anabolism can occur. Therefore, high cAMP levels also equate to high levels of luteinizing hormone (the hormone responsible for mediating endogenous spermatogenesis), and when cAMP levels are elevated (DRIVE causes a marked elevation of cAMP), it serves as an intermediate in the signaling cascade that ranges from luteinizing hormone (LH) binding to testosterone production. By increasing the intermediary between these two processes, a resulting increase in anabolism and protein synthesis can occur. Numerous other studies have shown parallels between increased cAMP levels and increased anabolism, and a ground-breaking 2005 study in *The Journal of Obesity Research* found that obese men taking 250 mg of 10% forskolin a day for 12 weeks (roughly the dosage included in the daily dosage of DRIVE) experienced an averaged 33% increase in free testosterone levels, averaged a 10 lbs. fat loss per person and increased lean mass an average of 8 lbs! A 2001 study by Badmaev (see chart below) also yielded similar results.

Forskolin-Induced Lean Body Mass Gains (Badmaev et al. 2001)

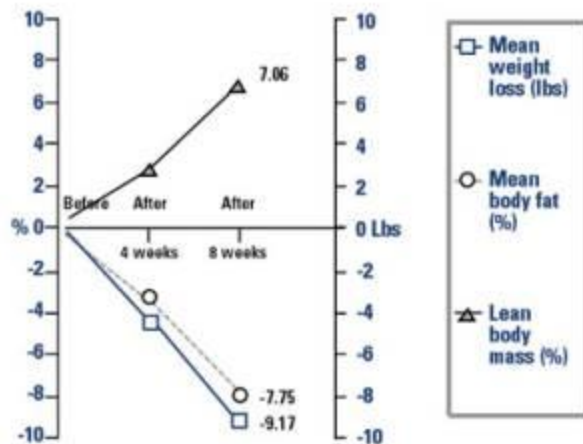
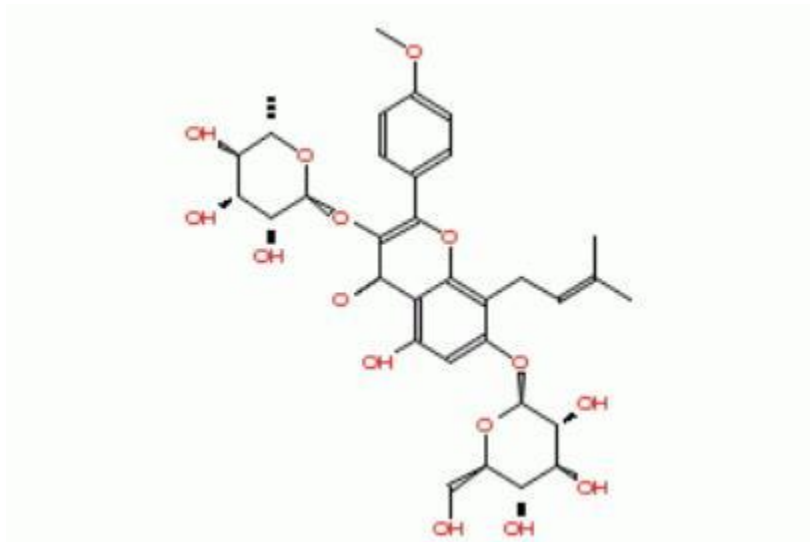


Fig. 4. Effect of forskolin on body weight, body fat, and lean body mass during 8 weeks (Badmaev, et al, 2001).

These findings are extremely promising for another important reason: When an athlete uses anabolics for any length of time, impairment of the **hypothalamo-pituitary gonadal axis** (HPTA - the entity responsible for endogenous testosterone production) tends to occur. This is noteworthy because when HPTA shutdown occurs, it temporarily diminishes the subject's ability to synthesize testosterone. A large part of HPTA shutdown is due to decreased cAMP and LH levels, and forskolin increases both of these. By upping cAMP and LH post-cycle, it allows the body to resume testosterone production safely, potentially even beyond pre-cycle baseline levels. A 1997 study in the *The Journal of Urology* found that forskolin can also aid in erectile dysfunction. It is also notable to mention that forskolin also has measurable effects on the androgen receptor, and may exert some positive anabolic effects through this channel as well.

ICARIIN



Icariin is a potent phytochemical that has been documented to have profound effects on anabolism. Icariin exerts its efficacy through several different mechanisms of action: Via competition with glucocorticoids and increasing cAMP levels, by modulating estrogen receptor antagonism and by decreasing prolactin levels. Several studies have shown that icariin competes with glucocorticoids for various receptor sites, and thus improves the testosterone/cortisol ratio. A 2006 study by Pan et al. showed that icariin blocks glucocorticoids from binding to cortisol receptors, hence antagonizing the actions of cortisol. This alone creates an anabolic effect by positively

skewing the testosterone/ cortisol ratio which is a trigger for greater anabolism, protein synthesis, increased aggression, and intensified muscle contractions. A 2006 study by Zhang found that icariin also has a testosterone mimetic effect on muscle tissue while increasing spermatogenesis however there is some disagreement among scientists on the mechanism by which icariin does this. A 2005 study conducted by Pan et al. concluded that icariin also has marked anti-depressant qualities through pituitary mediation, but the exact mechanism of action for this finding is also unknown.

Users of DRIVE report huge improvements in strength, physique hardness, sex drive and positive aggression while using this compound, an effect that can be at least partially attributed to the anabolic-mimicking qualities of icariin. DRIVE promotes higher dopamine levels and decreased prolactin levels, both of which are triggers for increased endogenous anabolism. Icariin can also enhance muscle contraction by decreasing the effects of acetylcholinesterase (AChE). Acetylcholine (ACh) is a neurotransmitter necessary for muscle contraction, and AChE is responsible for disabling ACh at the neuromuscular junction. Icariin blocks this disabling action, allowing for ACh to stay at the synapse and better exert its effects for a longer period of time- thus allowing for harder and stronger muscle contractions.

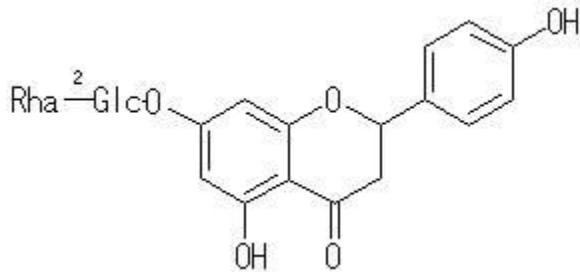
Action Potential/Muscle Contraction

Icariin is a selective inhibitor of **cyclic guanine monophosphate (cGMP)** - specifically **phosphodiesterase type 5 (PDE5)**. This is a notable characteristic, because PDE5 hydrolyzes cGMP into an inactive molecule. cGMP is important because nitric oxide requires cGMP to moderate vascular control and vasodilation. ***So essentially, no cGMP; no vasodilation (the "PUMP"), because nitric oxide requires cGMP to work. Conversely, the more cGMP; the more nitric oxide-induced vasodilation - therefore the greater the pumps.*** Icariin stops PDE5 from disabling cGMP and allows cGMP to extend its activity which increases the effects of nitric oxide in skeletal muscle and allows for a stronger muscle contraction and pump. This is the same way a popular pharmaceutical product – Viagra® – works; which is essentially the most well-known PDE5 inhibitor on the market.

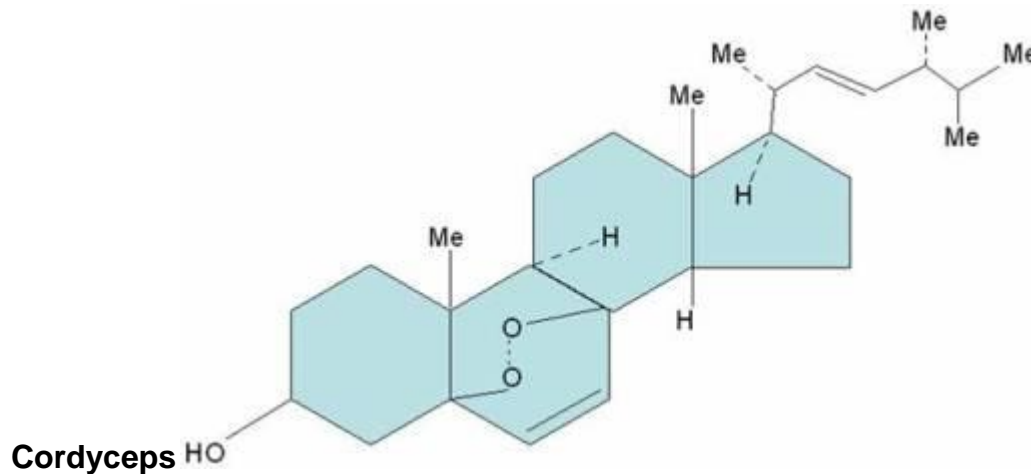
Long-term usage of PDE5 inhibitors (more than 1 month of usage) has been shown to increase the testosterone/estrogen ratio, as evidenced by a 2006 study in *The Journal of Sexual Medicine*. This is very noteworthy for two reasons: It shows that PDE5 inhibitors have more than just an acute effect, and that they have anabolic tendencies as well. Pure icariin has been found to have roughly one-tenth the PDE5 inhibitory activity and nitric oxide productivity of Viagra®, and the dosage provided in DRIVE is tailored appropriately to provide similar effects. In short, the PDE5 inhibition displayed by icariin puts DRIVE in a class above all other nitric oxide enhancers- as "pharmaceutical-strength" results are commonly experienced.

Naringin (or Naringenin-7-beta-neohesperidoside), and its novel component **Naringenin**, also contribute profound effects of DRIVE. Naringin (and Naringenin) exhibit remarkable anti-aromatase and estrogen-inhibiting properties by decreasing the cytochrome P450arom isoform. The P450 enzyme also allows for the oxidative metabolism for chemical modification and degradation of oral medications. Therefore, the addition of naringin in DRIVE allows for higher blood levels of the active ingredients to remain in the system of the user, making for a more effective product. Naringin and naringenin have been shown to slow the metabolism of caffeine and PDE5 inhibitors such as icariin, allowing for these compounds to be much more effective on a per dose basis - by up to 35%!!!

Naringin



Naringin also has very positive effects on the testosterone/estrogen ratio because Naringenin has significant estrogen reduction properties. By improving the testosterone/estrogen ratio, users will experience significant hardening effects on their physique. Increased insulin sensitivity is also a notable quality of naringin. Users benefit from this because by limiting insulin response, blood glucose levels remain more stable, sugar is less likely to be stored as fat, and excess insulin can blunt the effects of increased cAMP levels.



Cordyceps Sinesis is another essential component of DRIVE. (but now re-created under laboratory conditions), and has been traditionally used to improve reproductive function, prevent fatigue and slow the effects of aging. It also helps you adapt to stress, and may be instrumental in increasing endurance, increasing anabolism and protein synthesis and improving general health. Cordyceps contains several notable actives, including some unique polysaccharides, proteins, fatty acids, flavones, 2'-deoxyadenosine, and cordycepin. Of main relevance to this product is the ability of cordyceps to do several things:

- Decrease fatigue and increase physical endurance: Cordyceps has an adaptogenic effect that helps the body adjust to stress. Cordyceps has been shown to increase physical endurance and decrease fatigue. In double blind trials with humans, cordyceps significantly increased maximum oxygen intake during interval cycling, and was shown to decrease lactic acid, and respiratory exchange ratio during prolonged exercise. In a 2003 study, the swimming endurance capacity of mice given cordyceps was significantly prolonged from 75 to 90 min with a lessening of fatigue. Weight changes of the adrenal gland, spleen, thymus, and thyroid, which are indices of stress, tend to be higher in instances of increased cortisol. All of these factors were suppressed in the cordyceps group, indicating that cordyceps seems to possess a strong cortisol-lowering, anti-catabolic quality. This is important because high cortisol levels can disrupt anabolism, and lessen training efficacy.
- Elevate cAMP and ATP levels- this is very relevant to DRIVE, because it allows for even more intermediates for testosterone production. A 2005 study in the *International Journal of Biochemical Cellular Biology* found that cordyceps was extremely effective at stimulating steroidogenesis via elevation of cAMP and StAR (remember from earlier) levels, and this has been replicated in roughly 10 different studies.
- Increase the testosterone/cortisol ratio and increase testosterone levels and anabolism - this has been demonstrated in multiple animal studies. Cordyceps contains polysaccharides that are very similar to luteinizing hormone (LH) in structure, and it has been postulated that these polysaccharides mimic LH, stimulating increased testosterone production and subsequent anabolism. A 2001 study *The Journal of Life Sciences* furthered this hypothesis, and it was replicated in a 2003 study.
- Anti-oxidant and increased insulin sensitivity have also been demonstrated effects of cordyceps. In a 2003 study published in *The Journal of Life Sciences*, polysaccharides contained in cordyceps have been shown to exhibit a STRONG anti-oxidant effect, protecting the body against oxidation and free-radical damage. Some of the polysaccharides found in the mushroom have also been shown to drastically lower blood sugar levels and fight against insulin insensitivity. Cordyceps has also been shown to increase NO and serve as an erectile aid as well.

Dodder Seed Extract (or **cuscuta chineses**) is another important component of DRIVE, as it also activates the second messenger system, and subsequently allows greater amounts of cAMP to be generated from ATP. In a 2000 study by Qin in the *Asian Journal of Andrology*, dodder seed extract increased blood levels of testosterone and luteinizing hormone, and enhanced the growth of testes, epididymis and the pituitary gland which indicates an anabolic effect. In yet another study, combinations of icariin and dodder seed together were shown to increase cyclic AMP production, anabolism, and to also stimulate the growth of the testes, epididymis, and seminal vesicle in animals. Human clinical trials showed similar positive results. In one study, 50 patients with impotence were treated with a combination of icariin and dodder seed for 50 days. 76% (38 patients) experienced total recovery and 16% (8 patients) were improved for a total effectiveness rate of 92%.

In conclusion, the carefully selected and proportioned blend of constituents in DRIVE combine to create a truly synergistic compound that exploits a variety of different biochemical mechanisms of action to produce the most thoroughly researched, safe, effective and potent anabolic available.

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