and also curing them in one hand, in the other hand AI will minimize time and fee cost of mining of bioactive targeted molecules.

Materials and methods. Scientists are now saying that there are ingredients, which can be added to sports products (energy drinks and nutrition bars), may improve post-exercise recovery by reducing inflammation. This is not only beneficial to those who frequent the gym, but for professional athletes who rely on their bodies for their livelihood.

This recently discovered ingredient is called «PeptAIde» it comprises a unique peptide network unlocked from rice protein developed to alleviate inflammation, the body's response to injury.

Research demonstrates that the consumption of PeptAIde leads to anti-inflammatory responses by modulating cytokine responses and immune activity. As a result of the breakthrough, biopharma giant BASF will bring to the market this product called PeptAIde, which is a patented network of anti-inflammatory bioactive peptides discovered by Nuritas's proprietary AI platform.

The product is being launched commercially in the US with additional launches in Asia Pacific and Europe in 2019.

Founded in 2014, Nuritas combines IT and life sciences expertise to mine DNA and protein data from plant materials in the hope of discovering new food components to help prevent, manage and possibly even cure disease.

The tools used in molecule mining are adequate sets of software which combine the artificial intelligence sorting algorithms, matrixes and the bimolecular, drug technology theories, many types of mining are available to application on a ready bioactive compounds database such us ChEMBL data base, but what makes Nuritas special is their unique mining software which targets the only wanted bioactive element with the specific properties they want in any natural food, in less time possible.

Results and discussion. «Harnessing the power of AI to significantly improve human health through new discovery is no longer a vision for the distant future», Dr Emmet Browne, chief executive officer of Nuritas.

So actually, the AI has opened a new era in drug technology. One of the company's most exciting developments is the discovery of a peptide for the prevention of diabetes. The peptide has the potential to maintain blood sugar levels and prevent the onset of the condition. The drug-candidate is currently undergoing clinical trials to evaluate safety and efficacy in pre-diabetes.

Siliconrepublic.com reported that Nuritas secured 16m € in Series A funding led by Chicago-based Cultivian Sandbox Ventures, bringing its total investment at the time to approximately €25m. Earlier last year, Nuritas started working with food giant Nestlé to discover bioactive peptide networks within natural food sources. Nestlé is the world's largest food and beverage company, with a presence in 191 countries and 328,000 global employees.

Conclusion. In terms of the latest breakthrough, PeptAIde is the first product from a deep collaboration between Nuritas and BASF, which aims to discover and commercially develop food-derived, natural bioactive peptides for health benefit.

Historically, AI has been associated with significant hype but has to lead to the discovery of a healthcare product. With the launch of PeptAIde, Nuritas has delivered on that promise for the first time in human history by demonstrating AI's true potential to improve health. AI has enabled what was previously considered impossible.

DIABETES: GENETIC AND OTHER FACTORS

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Introduction. A disease in which the body's ability to produce or respond to the hormone insulin is impaired, resulting in abnormal metabolism of carbohydrates and elevated levels of glucose in the blood. Glucose is the main type of sugar in the blood and is the major source of energy for the body's cells.

Glucose comes from the foods we eat or the body can make it from other substances. Glucose is carried to the cells through the bloodstream. Several hormones, including insulin, control glucose levels in the blood. The symptoms of diabetes can include: blurred vision, fatigue, increased hunger and thirst, frequent urination, numbness or tingling in the hands and feet, sores that do not heal, unexplained weight loss.

Many of these symptoms occur as a result of the body trying to generate energy despite reduced or misused blood sugar. For example, a person may experience fatigue and hunger because they cannot absorb enough energy from the foods they eat. They may urinate and feel thirsty more often, as too much glucose can cause the body to get rid of large amounts of fluid.

Aim. The purpose of the work is to consider the causes of type 1 and type 2 diabetes and possible ways to treat them.

Results and discussion. Type 1 diabetes occurs when the immune system attacks and destroys the insulin-producing cells in the pancreas (the beta cells). As a result, the body is left without enough insulin to function normally (it becomes insulin deficient). This is called an autoimmune reaction, because the body attacks itself and produces antibodies to its own insulin-producing cells, thereby destroying them.

Researchers do not exactly know why this process is activated in some people. Apart from a possible genetic predisposition, the following triggers may be involved:

- viral or bacterial infection;
- chemical toxins in food.

When a person with type 1 diabetes develops symptoms, most of the beta cells in the pancreas have already been destroyed.

The causes of type 2 diabetes are multifactorial and complex. But even though there is no single cause, there are some well-known predisposing factors – the most overwhelming being obesity and a family history of type 2 diabetes. Type 2 diabetes is the result of both insulin resistance (when the cells don’t respond well to insulin and can’t easily take up glucose from the blood) and progressive beta-cell damage, resulting in too little insulin being secreted by the pancreas.

The main risk factors for type 1 diabetes include:

- family history: having a parent or sibling with type 1 diabetes increases the chances of a person having the same type. If both parents have type 1, the risk is even higher;
- age: type 1 diabetes usually affects younger people. Ages 4 to 7 and ages 10 to 14 are the most common. Type 1 diabetes may occur at other ages, although it does so less often;
- genetics: having certain genes may increase the risk of type 1 diabetes. Your doctor can check for these genes;
- where a person lives: studies have found more type 1 diabetes the further away from the equator a person lives.

The main risk factors for type 2 diabetes include: obesity or being overweight, especially around the waist; getting little or no exercise; high blood pressure; heart or blood vessel disease and stroke; low levels of «good» cholesterol (HDL); high levels of fats, called trigycerides; certain mental health conditions; polycystic ovary syndrome; smoking; stress; too much or too little sleep.

Type 1 diabetes can not be prevented. The same healthy lifestyle choices that help treat prediabetes. Type 2 diabetes and gestational diabetes can also help prevent them:

- eat healthy foods, as choose foods lower in fat and calories and higher in fiber. Focus on fruits, vegetables and whole grains;
- get more physical activity: aim for 30 minutes of moderate physical activity a day. Take a brisk daily walk. Ride your bike. Swim laps. If you can't fit in a long workout, break it up into smaller sessions spread throughout the day;
- lose excess pounds: if you are overweight, losing even 7 percent of your body weight — for example, 6.4 kilograms if you weigh 90.7 kilograms — can reduce the risk of diabetes;
- do not try to lose weight during pregnancy. Talk to your doctor about how much weight is healthy for you to gain during pregnancy;

- to keep your weight in a healthy range, focus on permanent changes to your eating and exercise habits. Motivate yourself by remembering the benefits of losing weight, such as a healthier heart, more energy and improved self-esteem.

Conclusions. So both genetic and environmental predisposition can contribute to type 1 and type 2 diabetes.

NEW WAYS OF SPINAL CORD INJURY TREATMENT

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Introduction. In today presentation we will talk about a enjory that has no cure for it till this moment and for many years there are scientists and doctors try to find any way to help to humans.when this enjury happens for human in addition to have its cost a lot to his family (for the firs year,people with high tetraplegia can expect to pay about a million dollars for care. Low tetraplegia produces about $769.000 in medical expenses, while paraplegia costs about $518.000. Injuries that produce incomplete motor function at any level cost an average of $347.000.

Aim. Even its cost a lot the society and person should bear it till and of his life and actually we can not say a perfect human or complite human to that person who getting this injury. This injury is known as spinal cord injury. When we speak about spinal cord injury we focus just to CNS dameging because it can be injury or disorder in afferent and efferent nervous. But we should care this point: peripherial nervous system can repair itself but CNS can not repair itself because some reasons who which i will discous abut them little bit later.

Results and discussion. Spinal cord unlike other parts of the body after deep injuries it is not restored. Damaged (dead) neurons do not transfer nervous messages and depending to area of the damaging, legs, hands and... are working out. Today with anti-inflammatory drugs that should inject max. 8 hours after damaging.

Damaged person can get partial recovery. And from another side death of neurons can be continue in damaged area few weeks after Today we have a lot of supposition to treat this injury:

1. Some of the researchers thinking with avoid dying neurons of the damage section they can preventation paralysis of legs and hands. And in examination about mouses researchers find some paricles and drugs who wich avoid dying of neurons. This mouses shown signs of recovery after 3 weeks and they can walk after 1 year. Injury. Scientists try to find such materials and drugs about humans.

2. Treatment with WIFI waves who wich presented by Lausanne Polytechnic İnstitute professors (Gregoire Courtine) and they was little successful in this method (but in monkey).

Greogire Courtine say skill of this method is the muscles of the monkey are stimulated to make the foot move. They do this by chip. The chip stimulates the desired nerve by the leg and force it to move. This implant have diameter smallest than coin.But this method is not logical from my perspective because this reasons:

1. It is not definitive treatment and i think they can not get acceptful reason and they sure they can not take any resault.

2. Every think for working need some energy source, chip to working and it is not possible exept surgery wayso person should undergo surgery a couple times in his life.

3. It is need min 20 years to examine it in humans and may be during this years they find some reason to stop this supposition and because this reason i told it is not exeptful way for therapy of spinal cord damaging.it is about WIFI waves theory. And a lot of away and theorys is present and scientists are trying and trying. But here i can see to ways and i searched a lot but i understanded scientists don`t presentation and idea to cure this.

My idea have some advantages first during the examination.we dont use and we do not need any external object.such chips or ect. Second, we use a human resourches, for example, we take all laboratory