Nebula Library

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CATEGORY CLEAR

Genomic
Microbiome
Favorites ⭐

TAGS

Tag Search, Ex: Autoimmunity

Addiction Aging Alcoholism Allergy Appearance Autoimmunity Behavior

+ VIEW MORE

169 Items Found Sort by: Newly Added

★ NEW 3/2020

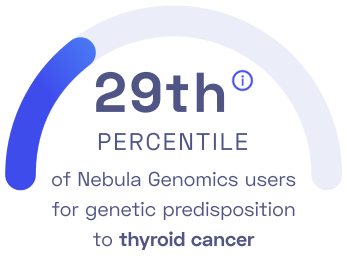
Thyroid cancer (Liyanarachchi, 2020)

Cancer Metabolism Thyroid

SUMMARY

Development of a polygenic risk score for thyroid cancer based on 10 previously identified genetic variants.

RESULTS



OVERVIEW

The thyroid is a butterfly-shaped gland in the front of the neck that produces *hormones* which control important bodily functions like blood pressure, temperature, and heart rate. Thyroid cancer is more heritable than most other cancer types, and it affects over 50,000 individuals each year in the United States.

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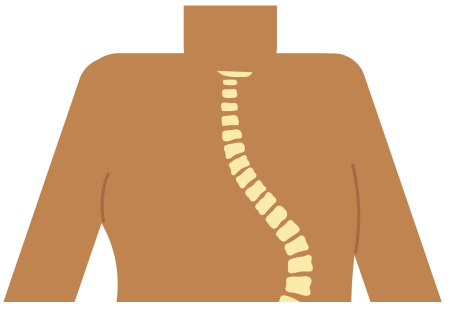
★ NEW 8/2019

Adolescent idiopathic scoliosis (Kou, 2019)

Spine Development

SUMMARY

Discovery of 14 novel genetic loci associated with adolescent *idiopathic* scoliosis, or abnormal curvature of the spine.



RESULTS **OVERVIEW**

84th PERCENTILE
of Nebula Genomics users for genetic predisposition to **adolescent idiopathic scoliosis**

Adolescent *idiopathic* scoliosis (AIS) is a sideways curvature of the spine (greater than 10 degrees) that appears in children and adolescent ages 10 to 18. AIS is a common disease, affecting 2-3% of adolescents worldwide. In fact, ~30% of individuals with AIS have a family history of scoliosis, suggesting that genetics plays a role in AIS development.

Scoliosis is a sideways curvature of the spine.

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★ NEW 11/2019

Idiopathic pulmonary fibrosis (Allen, 2019)

Lungs

SUMMARY

Identification of 5 novel variants associated with *idiopathic pulmonary fibrosis*.

RESULTS

13th PERCENTILE
of Nebula Genomics users for genetic predisposition to **idiopathic pulmonary fibrosis**

OVERVIEW

Idiopathic pulmonary fibrosis (IPF) is a *progressive* lung disease that is characterized by scarring of lungs which makes it hard to breathe. Over 15,000 new cases of IPF are reported yearly in the United States, however, the cause of IPF is not known and there is also no cure. This study sought to identify genetic factors that contribute to the risk of developing IPF.

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★ NEW 7/2010

Alopecia areata (Petukhova, 2010)

Autoimmunity Appearance

SUMMARY

Identification of 16 genomic regions associated with alopecia areata, an *autoimmune* disease that causes hair loss.

RESULTS

100th PERCENTILE
of Nebula Genomics users for genetic predisposition to **alopecia areata**

OVERVIEW

Alopecia areata occurs when the immune system attacks *hair follicles*, resulting in hair loss. Alopecia areata affects over 6.8 million people in the United States. The genetic basis of alopecia areata remains largely unknown. By examining the genomes of 4,332 individuals, this study identified 16 independent genetic variants that are associated with alopecia areata.

Circular bald patches are typical for alopecia areata.

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11/2010

Crohn's disease (Franke, 2010)

Intestines Inflammation

SUMMARY

Identification of 71 genetic variants associated with Crohn's disease.

RESULTS

20th PERCENTILE
of Nebula Genomics users for genetic predisposition to **Crohn's disease**

OVERVIEW

Crohn's disease is a type of inflammatory bowel disease, a condition characterized by chronic inflammation of the digestive tract. Nearly a million individuals in the United States alone are affected by Crohn's disease. Typical symptoms are pain, diarrhea and weight loss. To better understand the genetics of Crohn's disease, this study examined over 40,000 individuals of European descent.

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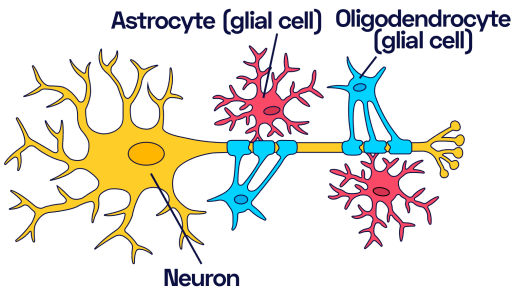
07/2009

Glioma (Shete, 2009)

Cancer Brain

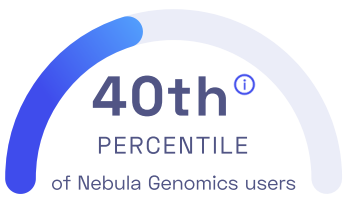


The function of glial cells is to support nerve cells.

SUMMARY

Identification of 5 risk variants associated with the development of gliomas.

RESULTS



OVERVIEW

Glial cells are found in the brain, spine, and other parts of the nervous system. The function of the glial cells is to protect and support the nervous system. Gliomas are a form of cancer that result from the uncontrolled growth of glial cells. To identify risk variants for glioma, this study examined the genetic information of over 11,000 individuals of Western European ancestry.

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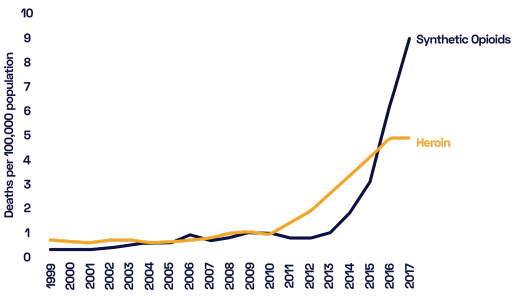
02/2020

☆ Opioid use (Polimanti, 2020)

Addiction



The United States have been affected by an opioid epidemic in recent years.

SUMMARY

Identification of 2 genetic variants associated with opioid use.

OVERVIEW

Opioids are substances commonly used to treat pain. However, opioids are highly addictive which can result in misuse and fatal overdoses. This genome-wide study of over 41,000 individuals of European and African descent investigated genetic contributions to opioid use and dependence.

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02/2020

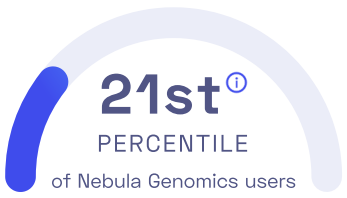
☆ Telomere length (Li, 2020)

Aging

SUMMARY

Identification of 6 novel genomic regions associated with leukocyte telomere length (LTL).

RESULTS



OVERVIEW

Telomeres are protective caps at the ends of *chromosomes* which get shorter as our bodies age. Telomere length, typically measured in *leukocytes* from blood samples, can be used as a *biomarker* for aging and age-related diseases like coronary artery disease and some cancers.

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2/2020

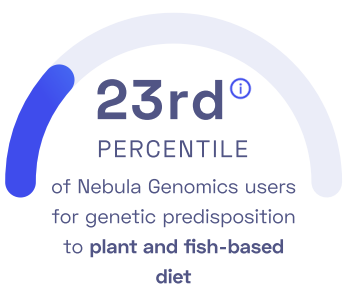
☆ Plant and fish-based diet (Niarchou, 2020)

Behavior Brain

SUMMARY

Identification of 63 genetic variants associated with a plant and fish-based diet.

RESULTS



OVERVIEW

Schizophrenia is a chronic brain disorder that affects how a person thinks, feels, and behaves. It affects about 1% of the population. While the development of schizophrenia is driven by genetics, environmental factors, such as diet, are also thought to play a role as weight gain and obesity are common in schizophrenia patients. Therefore, to determine the genetic basis of diet and whether there is a link between diet and schizophrenia risk, researchers examined the genomes of over 335,000 individuals of European ancestry.

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11/2018

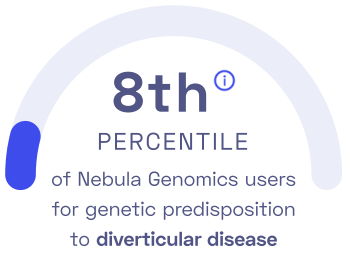
Diverticular disease (Maguire, 2018)

Intestines

SUMMARY

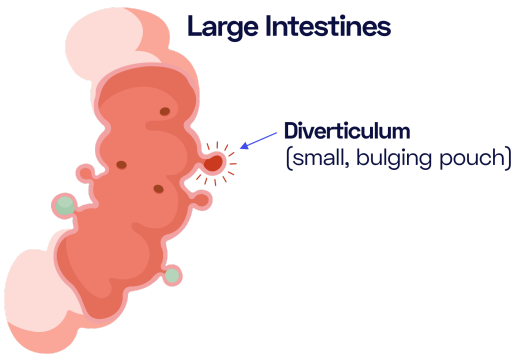
Identification of 42 genetic regions associated with diverticular disease.

RESULTS



OVERVIEW

The colon, also known as the large intestine, squeezes water and nutrients out of the food we eat. Diverticular disease occurs when pressure causes small pouches to form in the colon, which can result in abdominal pain, intestinal bleeding, and diarrhea. Diverticular disease is very common, affecting around 35% of those under 50 and nearly 60% of individuals over 60, though not everyone experiences symptoms. Genetics is thought to explain over 50% of an individual's risk of developing diverticular disease.



The pouches can get inflammed and cause pain.

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2/2020

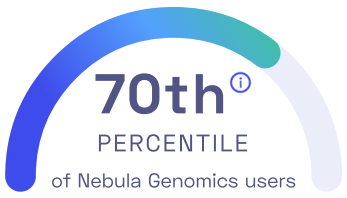
Systemic lupus erythematosus (Chen, 2020)

Kidneys Inflammation Autoimmunity

SUMMARY

Development of a genetic risk score to predict the risk of systemic lupus erythematosus (SLE).

RESULTS



OVERVIEW

Systemic lupus erythematosus (SLE) is an autoimmune disorder characterized by widespread inflammation and tissue damage. More than 200,000 new SLE cases are diagnosed in the United States every year. About one half of SLE patients experience kidney disease, which is the one of the most common causes of death in SLE patients.

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A typical sign of lupus is a butterfly-shaped rash across the cheeks and bridge of the nose.

05/2016

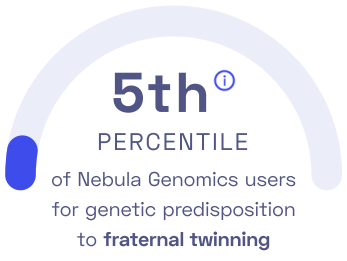
Fraternal twinning (Mbarek, 2016)

Pregnancy

SUMMARY

Discovery of 3 genetic variants that are associated with spontaneous fraternal twinning.

RESULTS



OVERVIEW

If you walk past 30 people in the United States, the odds are good that at least one of them will have a twin brother or sister. Travel to many areas of Asia and that number rockets to 70 people, but visit the west African country of Benin and you may only need to walk past 16 people to see a twin. Twins can either be identical or fraternal, but the genetic factors that may influence a woman's chances of having either type are not well understood.

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2/2020

Squamous cell carcinoma (Sarin, 2020)

Cancer Skin

SUMMARY

Identification of 8 novel genomic variants associated with cutaneous *squamous cell* carcinoma (SCC).

RESULTS

52nd PERCENTILE

of Nebula Genomics users for genetic predisposition to **squamous cell carcinoma**

OVERVIEW

Cutaneous *squamous cell* carcinoma (SCC) is the second most common form of skin cancer. Most SCCs can be easily removed, but if left untreated, they can grow deeper into the skin and the cancer cells can spread to other parts of the body.

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2/2020

Testosterone level (Ruth, 2020)

Hormones Sex

SUMMARY

Identification of over 200 genetic variants associated with testosterone level.

RESULTS

62nd PERCENTILE

of Nebula Genomics users for genetic predisposition to **higher testosterone level**

OVERVIEW

Testosterone is the main male sex hormone. However, it regulates bodily functions, like muscle development and fertility, in both sexes. This study examined over 425,000 individuals of European ancestry from the UK Biobank database to identify genetic factors associated with testosterone level.

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2/2020

Snoring (Campos, 2020)

Sleep Lungs

SUMMARY

Identification of 42 genetic regions associated with snoring.

RESULTS

6th PERCENTILE

of Nebula Genomics users for genetic predisposition to **snoring**

OVERVIEW

Snoring may disrupt your or your partner's sleep. It is incredibly common and affects more men (35-45%) than women (15-28%). Moreover, snoring may be a sign of a more serious condition known as obstructive *sleep apnea*, which is characterized by pauses in breathing due to blocked upper airways which decreases the amount of oxygen in the blood.

Snoring is often associated with a sleep disorder called obstructive sleep apnea.

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2/2020

Vitamin D level (Manousaki, 2020)

Skin Bones

SUMMARY

Identification of 69 genetic regions associated with vitamin D level.

RESULTS

90th PERCENTILE

of Nebula Genomics users for genetic predisposition to **higher vitamin D level**

OVERVIEW

Vitamin D is known as the "sunshine vitamin" because it's produced by the skin when it's exposed to sunlight. Vitamin D helps ensure that the body absorbs and retains the minerals calcium and phosphorus, which are important for building strong bones. In this study, researchers aimed to understand the genetic determinants of vitamin D level by conducting a genome-wide association study of ~400,000 individuals of European ancestry.

The body produces vitamin D when the skin is exposed to the sun.

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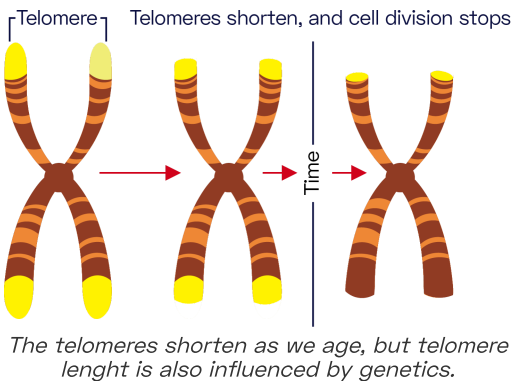
3/2013

Telomere length (Codd, 2013)

Aging



The telomeres shorten as we age, but telomere lenght is also influenced by genetics.

SUMMARY

Identification of 5 novel genetic regions linked to the length of telomeres.

RESULTS

22nd PERCENTILE of Nebula Genomics users for genetic predisposition to **longer telomeres**

OVERVIEW

The DNA in our cells is tightly packed into structures called chromosomes. The sequences at the ends of chromosomes form caps known as telomeres. These structures help to protect our chromosomes much like how the plastic tips on shoelaces protect the ends from fraying. Over many cell divisions during which a cell's entire DNA is copied, telomeres progressively get shorter until the DNA gets damaged and the cells eventually die. It is estimated that up to 80% of an individual's telomere length is heritable.

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2/2020

Severe aplastic anemia (Savage, 2020)

Blood Autoimmunity

SUMMARY

Identification of 2 genomic regions associated with risk for severe aplastic anemia.

OVERVIEW

Aplastic anemia is an autoimmune disease in which the bone marrow does not produce enough blood cells. In severe cases aplastic anemia can become life-threatening. This genome-wide association study sought to identify variants associated with risk of severe aplastic anemia by examining genetic information of nearly 3,000 individuals of European descent.

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8/1996

HIV resistance (Samson, 1996)

Infection

SUMMARY

Identification of a common genetic variant that confers HIV resistance.

OVERVIEW

The human immunodeficiency virus (HIV) destroys the immune system by killing white blood cells that are needed to fight infection. This disease is called acquired immunodeficiency syndrome (AIDS). CCR5 is a protein on the surface of white blood cells, that is bound by HIV and used to enter the cells.

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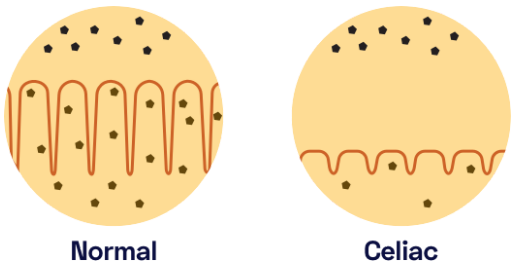
2/2010

Celiac disease (Dubois, 2010)

Intestines Autoimmunity Diet



Destruction of the lining of the small intestines leads to malabsorption of nutrients.

SUMMARY

Discovery of 13 new genomic regions associated with celiac disease.

RESULTS

38th PERCENTILE of Nebula Genomics users for genetic predisposition to **celiac disease**

OVERVIEW

Celiac disease is characterized by an inability to eat gluten, a protein found in wheat and some other types of grain. The disorder is an autoimmune disease, in which the body's own immune system attacks the intestines in the presence of gluten. This can lead to pain, diarrhea, and other digestive problems.

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