What society's appointed experts/authorities say depression is

* Depression is a *medical illness*
* Depression is a *(medical) disease*
* Depression is a *leading cause of disability* and *burden of disease globally*
* Depression is a *mental illness*
* Depression is a *mental disorder*
* Depression is a *mood disorder*
* Depression is a *biological – and therefore medical – illness*
* Depression is a *brain disease/brain disorder*
* Depression is a *brain chemical imbalance*
* Depression is a *genetic – and therefore medical - illness*
* Depression is a *medical illness just like diabetes*
* Depression can be *endogenous or reactive*
* There is *no cure for depression*

What society's appointed experts/authorities say depression is

* Depression is a *medical illness* ✗
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* Depression is a *medical illness just like diabetes* ✗
* Depression can be *endogenous or reactive*
* There is *no cure for depression*

Black Dog Institute

Genetics

there is in fact, strong evidence for significant genetic predisposition towards developing depression.

http://www.blackdoginstitute.org.au/public/depression/causesofdepression/genetics.cfm

Depression in adults

None scientifically verified

Genetic factors

NONE SPECIFIED

Similar genetic ‘risk factors’ are involved in whether someone develops severe depression, bipolar disorder or schizophrenia.

Depression | Royal College of Psychiatrists (rcpsych.ac.uk)

NHS

- **Genes**

Depression can run in families. If you have one parent who has become severely depressed, you are about eight times more likely to become depressed yourself.

Many things “run in families”

Some are genetic, many others are not

Extrapolating FROM “can run in families” THAT This is a known genetic illness

IS

A leap of faith

Not evidence-based

http://www.nhs.uk/ipgmedia/national/Royal%20College%20of%20Psychiatrists/Assets/Depression.pdf

What are genes?

MedlinePlus
Trusted Health Information for You

Genetic Disorders

Genes are the building blocks of heredity.

They are passed from parent to child.

They hold DNA, the instructions for making proteins.

Proteins do most of the work in cells.

They move molecules from one place to another,

build structures, break down toxins, and do many other maintenance jobs.

What are genetic disorders?

MedlinePlus
Trusted Health Information for You

Genetic Disorders

Sometimes there is a mutation, a change in a gene or genes.
The mutation changes the gene's instructions for making a protein,
so the protein does not work properly or is missing entirely.

This can cause a medical condition called a genetic disorder.

Genetic Disorders: MedlinePlus

Merriam-Webster SINCE 1828

gene mutation

a permanent alteration
in the
nucleotide sequence of a gene

I.E.

Change in gene structure

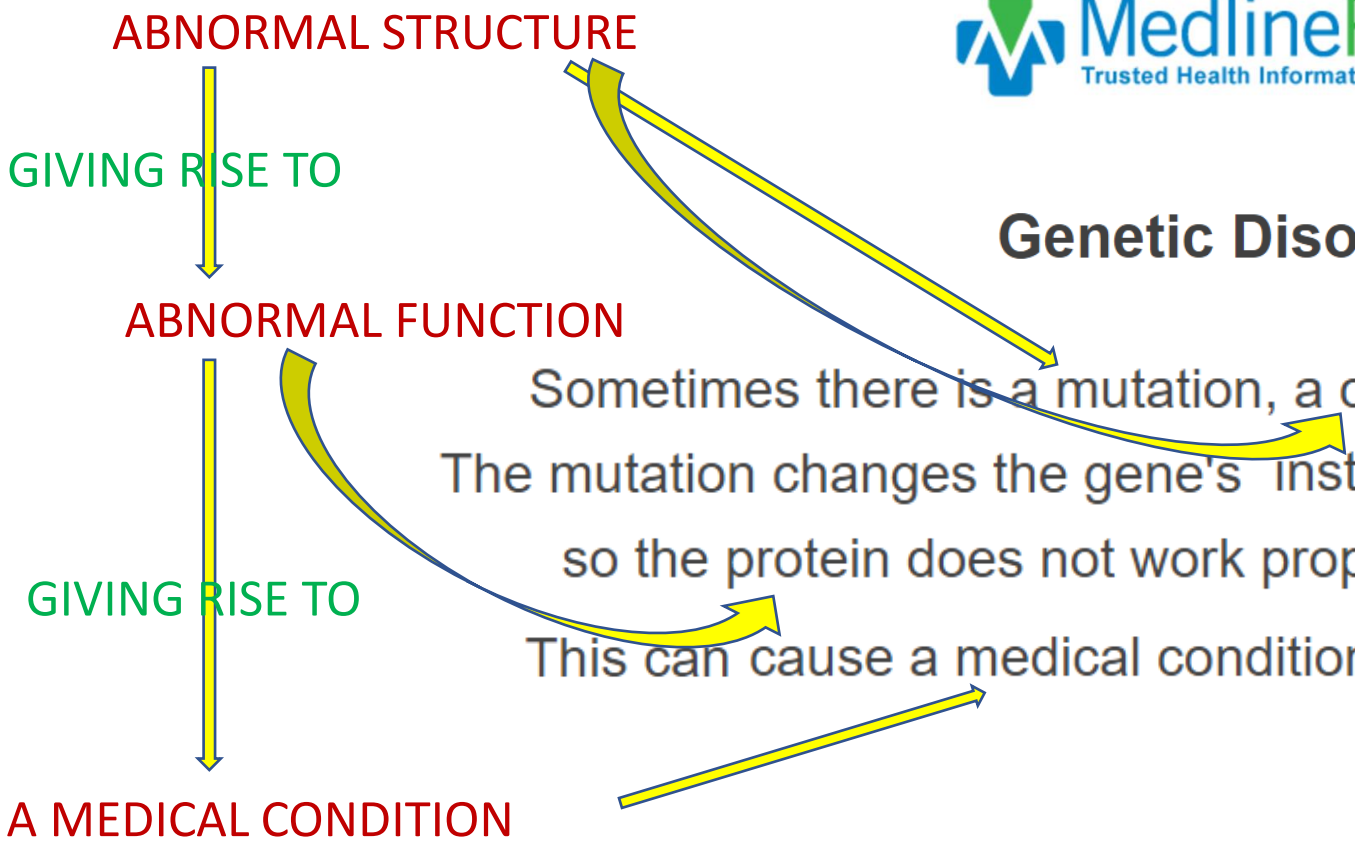
GIVING RISE TO

Changes in gene function

GIVING RISE TO

Biological abnormalities

Gene mutation Definition & Meaning - Merriam-Webster



MedlinePlus
Trusted Health Information for You

Genetic Disorders

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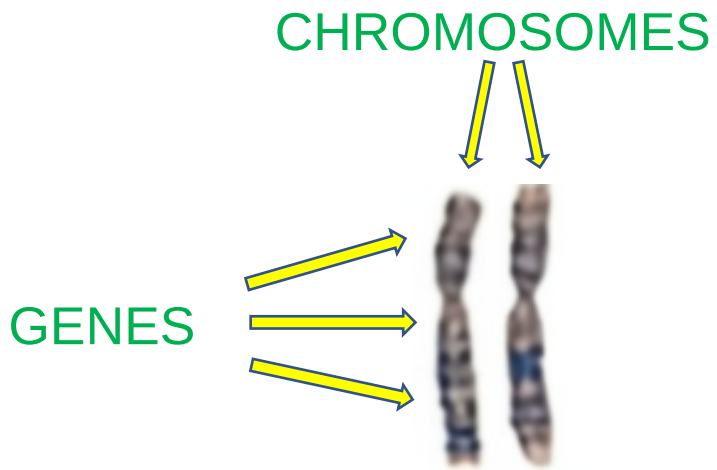
Genetic Disorders: MedlinePlus

MedlinePlus
Trusted Health Information for You

Genetic Disorders

There are three types of genetic disorders:

- Single-gene disorders, where a mutation affects one gene. Sickle cell anemia is an example.
- Chromosomal disorders, where chromosomes (or parts of chromosomes) are missing or changed. Chromosomes are the structures that hold our genes. Down syndrome is a chromosomal disorder.
- Complex disorders, where there are mutations in two or more genes. Often your lifestyle and environment also play a role. Colon cancer is an example.



Genetic Disorders: MedlinePlus

Genetic disorders occur when there is

1. A mutation (change) in one gene
2. Mutations in multiple genes
3. A combination of gene mutations and environmental factors.
4. Damage to chromosomes, the structures that carry genes.

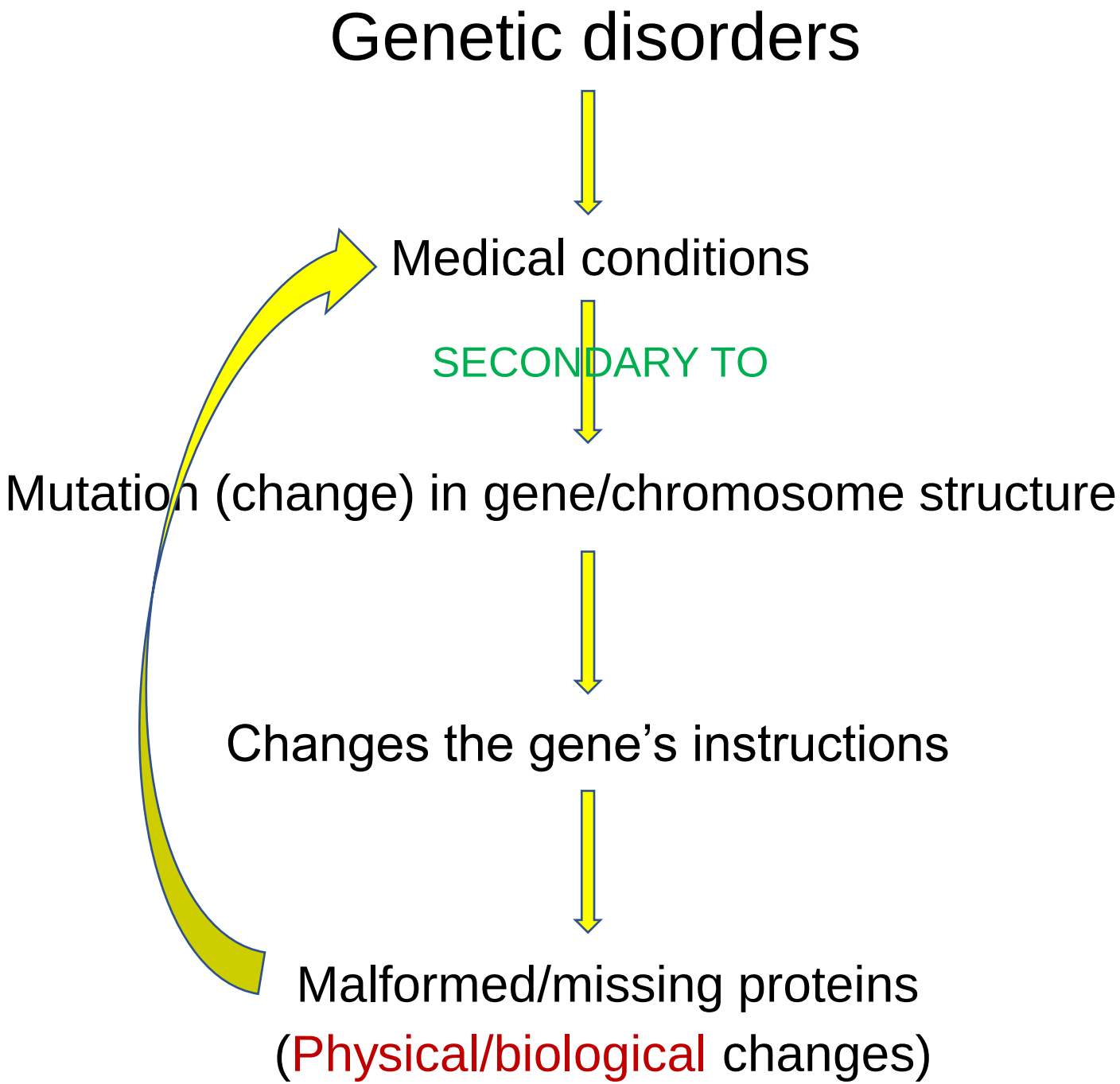
Changes in the number or structure of entire chromosomes.

KEY CRITERIA

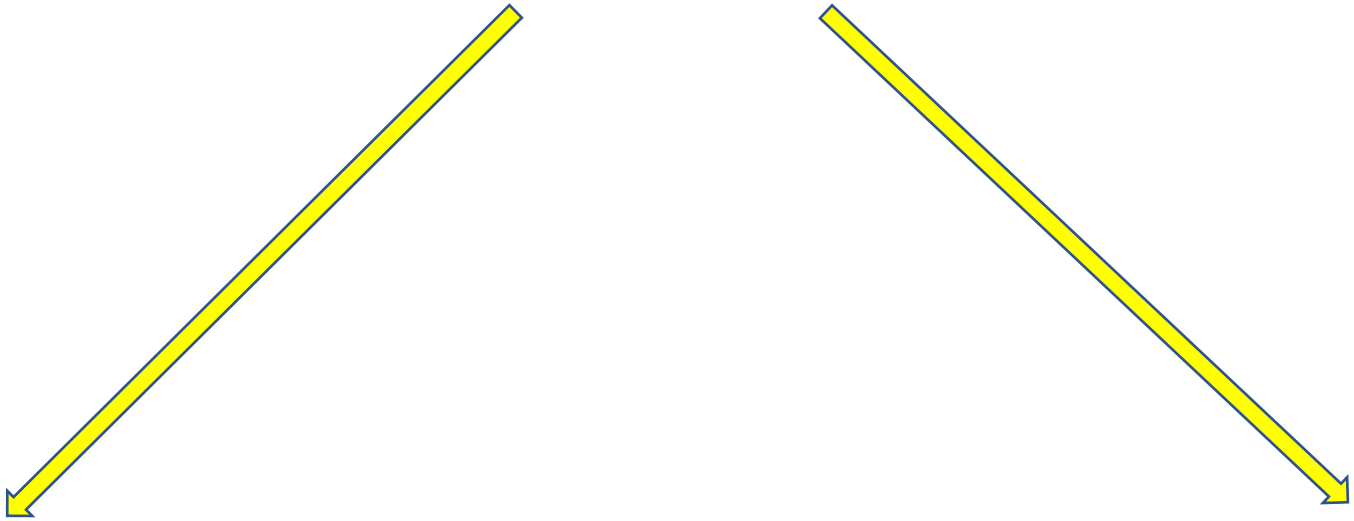
(Physical/Identifiable) Mutation in gene(s)
Physical/identifiable changes in number or structure of entire chromosomes

I.E.

Definite scientifically verifiable physical/biological genetic alterations


Genetic disorders
Medical conditions
SECONDARY TO
Mutation (change) in gene/chromosome structure
Changes the gene's instructions
Malformed/missing proteins
(Physical/biological changes)

Gene mutations



Inherited from one/both parents

Can happen during one’s lifetime

National Heart, Lung, and Blood Institute

What Causes Cystic Fibrosis?

A defect in the CFTR gene causes cystic fibrosis (CF).

This gene makes a protein that controls the movement of salt and water in and out of your body's cells.

In people who have CF, the gene makes a protein that doesn't work well.

This causes thick, sticky mucus and very salty sweat.

I.E.

Changes/abnormalities in genetic structure

GIVING RISE TO

Changes/abnormalities in genetic function

GIVING RISE TO

Biological/physical abnormalities

http://www.nhlbi.nih.gov/health/health-topics/topics/cf/causes

Genetic disorders

OCCUR WHEN THERE IS

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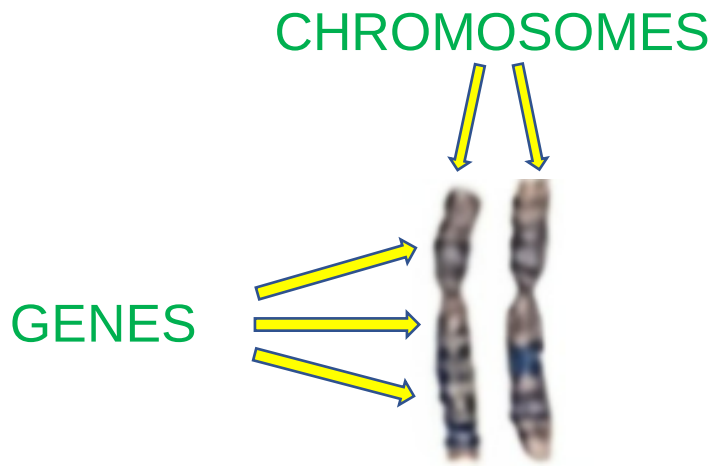


IF A GENETIC ABNORMALITY HAS BEEN IDENTIFIED, IT CAN BE TESTED FOR

Genetic testing

Genetic Diagnosis – A definition

⟹ Generally a genetic diagnosis is confirmed through genetic testing

Genetic testing analyzes cells within the body, in order to identify changes or mutations in the genes, chromosomes or proteins that might trigger or cause a genetic syndrome.

Genetic testing can also be used to understand the chances of an individual developing a specific rare disease, based on their genetic makeup.

The identification of these mutations or changes in the genes or chromosomes, can be used to help reach a genetic diagnosis.

Genetic Diagnosis A Definition: we explain the process - FDNA Telehealth

MAYO CLINIC

Genetic testing

Definition

By Mayo Clinic Staff

Genetic testing involves examining your DNA, the chemical database that carries instructions for your body's functions.

Genetic testing can reveal changes or alterations in your genes that may cause illness or disease.

http://www.mayoclinic.org/tests-procedures/genetic-testing/basics/definition/prc-20014802

Does depression meet these criteria for a genetic disorder?

National Library of Medicine
National Center for Biotechnology Information

A genome-wide association study of depressive symptoms

Biol Psychiatry. 2013 Apr 1

Depression is a heritable trait that exists on a continuum of varying severity and duration. Yet, the search for genetic variants associated with depression has had few successes.

A genome-wide association study of depressive symptoms - PubMed (nih.gov)

ScienceNews
INDEPENDENT JOURNALISM SINCE 1921

Depression gene search disappoints

By Laura Sanders

JANUARY 16, 2013

A massive effort to uncover genes involved in depression has largely failed. By combing through the DNA of 34,549 volunteers, an international team of 86 scientists hoped to uncover genetic influences that affect a person's vulnerability to depression. But the analysis turned up nothing.

The results are the latest in a string of large studies that have failed to pinpoint genetic culprits of depression.

Depression gene search disappoints (sciencenews.org)

PsychCentral®

Massive Search for 'Depression Gene' Comes Up Empty

By Traci Pedersen

An enormous study designed to uncover the genes involved in depression has left an international team of scientists somewhat empty-handed.

The research involved the DNA analysis of 34,549 volunteers as 86 scientists tried to pinpoint the genetic influences tied to depression.

http://psychcentral.com/news/2013/01/19/massive-search-for-depression-gene-comes-up-empty/50559.html

ScienceAlert

Massive Study Debunks Claim That There's a Single Gene For Depression

03 April 2019 By MIKE MCRAE

The analysis of more than 620,000 individuals by researchers from across the US represents the largest and most comprehensive study of its kind. After an intensive search, the team came up empty handed.

"This study confirms that efforts to find a single gene or handful of genes which determine depression are doomed to fail," says geneticist Richard Border from the University of Colorado Boulder.

Massive Study Debunks Claim That There's a Single Gene For Depression : ScienceAlert

sciencealert

Massive Study Debunks Claim That There's a Single Gene For Depression

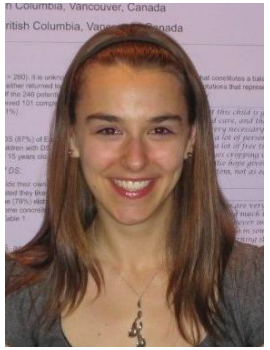
03 April 2019 By MIKE MCRAE

Its conclusion is a massive blow for any clinical agencies hoping to create diagnostic tools and treatments based on the belief that depression is the result of something as simple as a few broken genes.

Failure to find such simple links isn't the fault of geneticists, the researchers are quick to point out. Hypotheses based on basic relationships between behaviour and candidate genes are widely known to be flawed.

"It's like in 'The Emperor Wears No Clothes.' There's just nothing there," says Keller.

Massive Study Debunks Claim That There's a Single Gene For Depression : ScienceAlert



Dr. Angela Inglis

Genetic counsellor

Assistant clinical professor

Department of Psychiatry

University of British Columbia, Canada

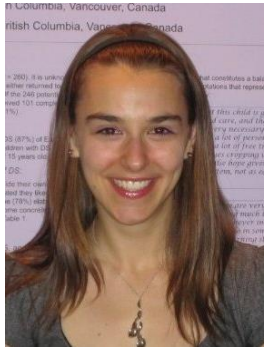
February 2012

Genetic counselling services

People given psychiatric diagnoses & their families

World’s first psychiatric genetic counselling service

British Colombia, Canada



internationalbipolarfoundation
A world of hope, resources and support

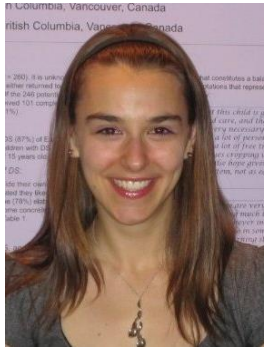
Dr. Angela Inglis, Genetic Counseling For Psychiatric Illness.

Tuesday, December 3, 2013 - 00:00

What does all this mean?

- There is no genetic test with which to diagnose psychiatric disorders.

http://www.ibpf.org/event/dr-angela-inglis-genetic-counseling-psychiatric-illness



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Dr. Angela Inglis, Genetic Counseling For Psychiatric Illness.

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"In general for people who have mental illness, we don't do any genetic testing".

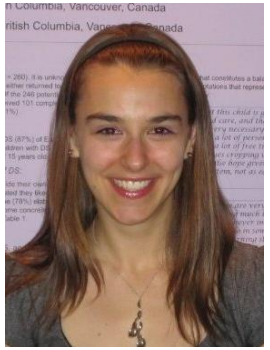
WHY NOT?

There is no point
There are no genetic markers

THEREFORE

There can be no reliable genetic tests
There is nothing to test for

http://www.ibpf.org/event/dr-angela-inglis-genetic-counseling-psychiatric-illness, accessed 29th April 2016.



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Dr. Angela Inglis, Genetic Counseling For Psychiatric Illness.

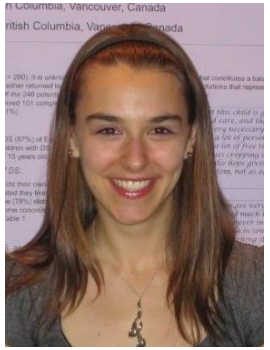
Tuesday, December 3, 2013 - 00:00

Q and A after webinar

1st question: ⟶ From me

"Are there any psychiatric conditions
for which genetic pathways
have been reliably established?"

(at 46 min 40 sec on this webinar recording link)
http://www.ibpf.org/event/dr-angela-inglis-genetic-counseling-psychiatric-illness



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Dr. Angela Inglis, Genetic Counseling For Psychiatric Illness.

Tuesday, December 3, 2013 - 00:00

Dr. Inglis' response to my question

APPEARED THROWN BY THE QUESTION

"Any psychiatric conditions?"

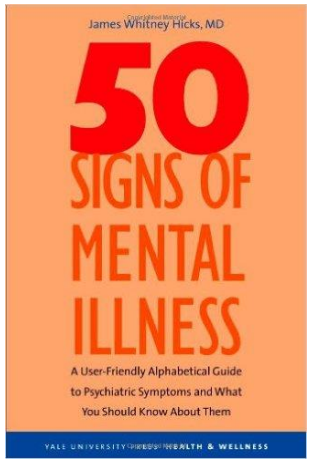
"Can you repeat the question?"

"If I'm understanding the question correctly" → Twice

("Are there any psychiatric conditions for which genetic pathways have been reliably established?")

"No, not at this point" (in time)

(at 46 min 40 sec on this webinar recording link)
http://www.ibpf.org/event/dr-angela-inglis-genetic-counseling-psychiatric-illness



“Genetic vulnerability”

Dr. James Hicks

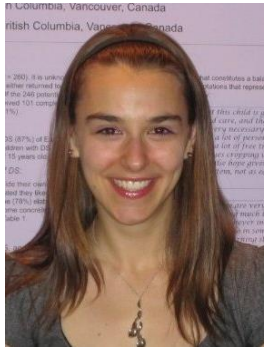
New York psychiatrist

2005

“Scientists are certain that genetic vulnerability plays a role in many mental illnesses, since the risk of becoming ill is greater if you have a close relative who suffers from depression, bipolar illness, schizophrenia, anxiety, alcoholism, among others”

“No specific gene has yet been isolated for any of these illnesses”

James Whitney Hicks M.D., *50 Signs of Mental Illness: A Guide to Understanding Mental Health,* Yale University Press, 2005: Yale University Press: Yale.



internationalbipolarfoundation
A world of hope, resources and support

Dr. Angela Inglis, Genetic Counseling For Psychiatric Illness.

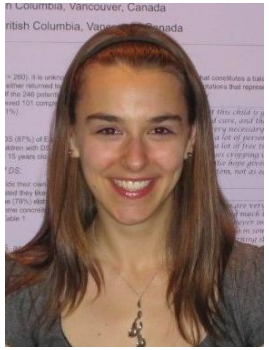
Tuesday, December 3, 2013 - 00:00

Mental illnesses: caused by genes AND environment

1. The genetic differences that contribute to mental illnesses are best referred to as conferring SUSCEPTIBILITY/VULNERABILITY or PREDISPOSITION genes, *NOT* causation.

2. In general, mental illness is *NOT* inherited, but one can inherit a vulnerability to it.

http://www.ibpf.org/event/dr-angela-inglis-genetic-counseling-psychiatric-illness



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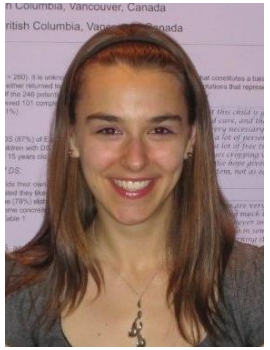

internationalbipolarfoundation
A world of hope, resources and support

"Genetic Counselling for Psychiatric Illness", 3rd December 2013, hosted by the International Bipolar Foundation.

Dr. Angela Inglis

Assistant clinical professor Genetic counsellor
Department of Psychiatry University of British Columbia.

Q: "Could you elaborate more specifically on the idea of 'genetic vulnerability', with examples?"

A: "Okay . . am . . so . . at this point . . am . . really . . we're . . we're . . there are . . just . . sort of . . (sigh) . . am . . I guess . . there are some conditions where we know there's . . am . . I guess . . a larger . . or . . am . . am . . genetic vulnerability . . so we know a condition like 22q11.2 deletion syndrome, these people have a higher chance of experiencing a psychiatric disorder"

http://www.ibpf.org/event/dr-angela-inglis-genetic-counseling-psychiatric-illness
(At 48 min 51 sec on webinar recording)

Genetic disorders

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MedlinePlus
Trusted Health Information for You

Genetic Testing

Genetic tests are tests on blood and other tissue to find genetic disorders.

Over 2000 tests are available.

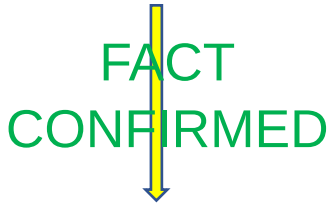
BUT . . .

0 for psychiatric diagnoses

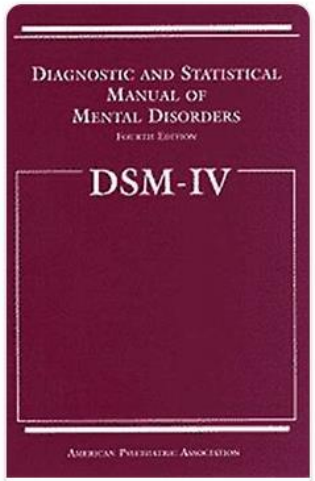
https://www.nlm.nih.gov/medlineplus/genetictesting.html

Logical conclusion

Depression does *not* meet the long-established criteria for a genetic disorder



Many with the appropriate level of understanding/expertise to so do

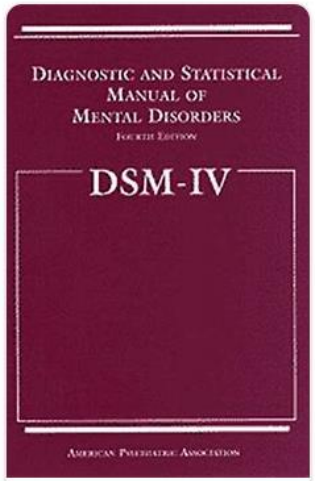


Allen Frances
@AllenFrancesMD

Mar 10, 2021

Genetic studies of "Major Depressive Disorder" are virtually useless

(5) Allen Frances on Twitter: "Genetic studies of "Major Depressive Disorder" are virtually useless because: 1)As defined by DSM, MDD is far too heterogeneous- including the sickest of patients with people who have just two weeks of normal sadness 2)Hundreds of genes may contribute but each just a tiny bit." / Twitter



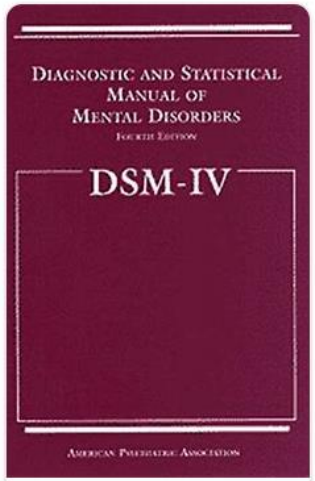
Allen Frances
@AllenFrancesMD

Jan 26, 2020

Paradoxically, the only useful finding from gene studies in psychiatry is their complete uselessness in explaining/treating #mentalillness.

The **genetics** turned out to be far too complicated & interacting to provide any guidance to clinical practice- now & perhaps forever.

(5) Allen Frances on Twitter: "Paradoxically, the only useful finding from gene studies in psychiatry is their complete uselessness in explaining/treating #mentalillness. The genetics turned out to be far too complicated & interacting to provide any guidance to clinical practice- now & perhaps forever." / Twitter



Allen Frances
@AllenFrancesMD

Jun 15, 2020

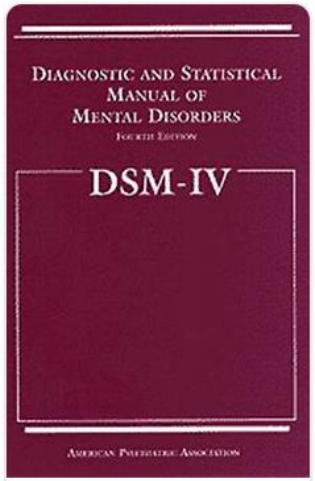
Hyped reach of biological psychiatry far exceeds its grasp.

40 yrs intense biomarker research has come up completely empty.

Genetics & brain imaging are both disappointing flops.

This promise we can predict future disorder= pure pie in sky.

(5) Allen Frances on Twitter: "Hyped reach of biological psychiatry far exceeds its grasp. 40 yrs intense biomarker research has come up completely empty. Genetics & brain imaging are both disappointing flops. No markers yet even for #Alzheimers. This promise we can predict future disorder= pure pie in sky." / Twitter Accessed on 7ty November 2022

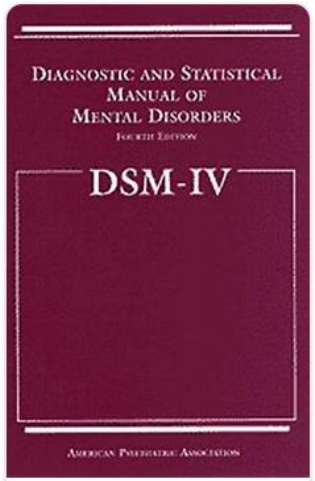


Allen Frances
@AllenFrancesMD

Nov 2, 2019

Sad truth: Research billions spent on the **genetics**/brain biology of #mentalillness hasn't yet helped one patient.

(5) Allen Frances on Twitter: "Sad truth: Research billions spent on the genetics/brain biology of #mentalillness hasn't yet helped one patient. Complexity defeats most powerful tools/no low hanging fruit/little hope magic break-thrus. Need to focus much more on desperate practical needs of current patients" / Twitter

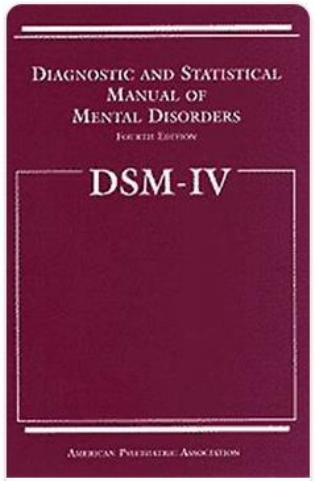


Allen Frances
@AllenFrancesMD

Sep 14, 2019

Genetics research funding in psychiatry has been "far too much chasing an almost useless thing."

(5) Allen Frances on Twitter: "My opposing view: Genetics research funding in psychiatry has been "far too much chasing an almost useless thing." Meanwhile 600,000 of our patients suffer in jail or homeless. We.need model programs to set them free & get them treatment/housing." / Twitter



Allen Frances
@AllenFrancesMD

May 2, 2021

In my 55 years of closely following the clinical psychiatry literature, there have been very few exciting new findings that would actually help patients.

Almost all the research is on brain or genes- a wonderful intellectual adventure that's essentially useless for patients.

Is not the purpose

MEDICAL RESEARCH

Benefit the public?

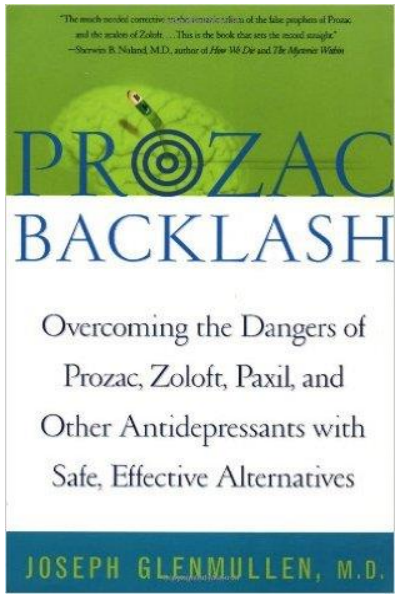
? ? ?

(5) Allen Frances on Twitter: "In my 55 years of closely following the clinical psychiatry literature, there have been very few exciting new findings that would actually help patients. Almost all the research is on brain or genes- a wonderful intellectual adventure that's essentially useless for patients." / Twitter Accessed on 7th November 2022

Dr. Joseph Glenmullen

Psychiatrist

Harvard Medical School



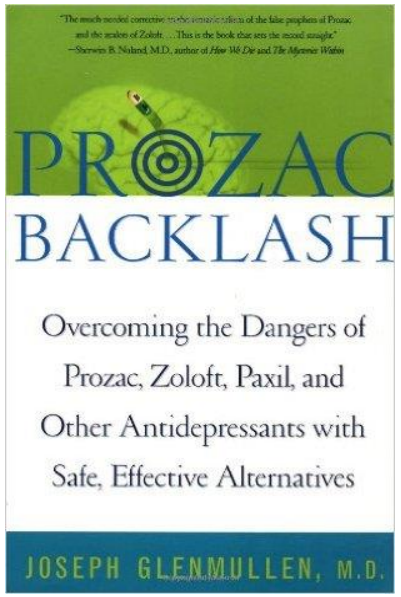
"No claim for a gene for a psychiatric condition has stood the test of time, in spite of popular misinformation."

Joseph Glenmullen, *Prozac Backlash: Overcoming the Dangers of Prozac, Zoloft, Paxil and Other Antidepressants with Safe, Effective Alternatives,* Simon & Shuster, 2001, p. 192-198

Dr. Joseph Glenmullen

Psychiatrist

Harvard Medical School



"In the absence of a definitive gene,
calling diagnoses that run in families 'genetic'
is a huge hypothetical leap".

"Religious affiliation and political party
are the two traits most reliably running in families.
Would anyone claim these are genetic?"

Joseph Glenmullen, *Prozac Backlash: Overcoming the Dangers of Prozac, Zoloft, Paxil and Other Antidepressants with Safe, Effective Alternatives,* Simon & Shuster, 2001, p. 199.

Dr. Steven Hyman

American psychiatrist

Director

National Institute of Mental Health

1996-2001

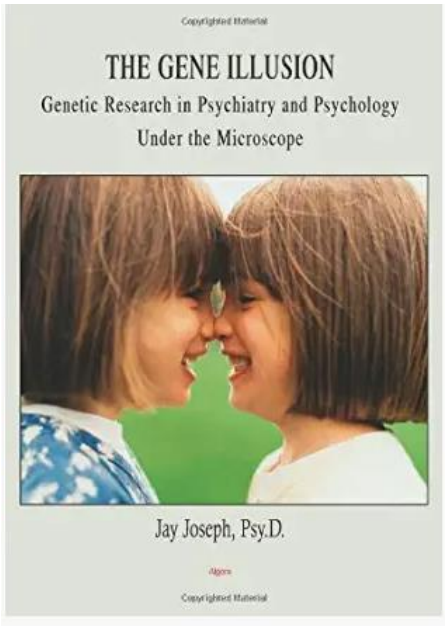
World Health Organization

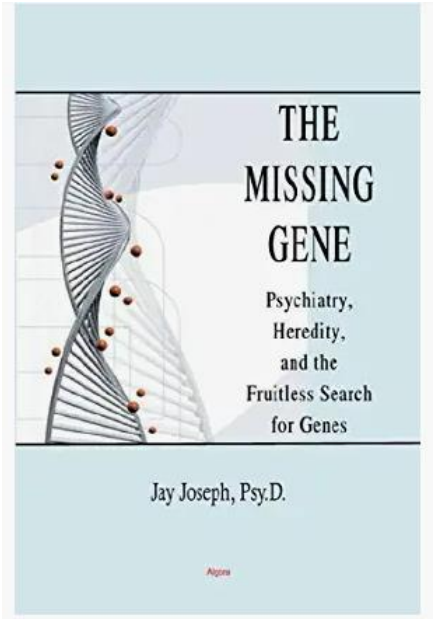
2000

The genetics of mental illness: implications for practice

Gone is the notion that there is a single gene that causes any mental disorder or determines any behavioural variant.

Stephen E. Hyman, Bulletin of the World Health Organization, 2000, 78 (4), http://www.who.int/bulletin/archives/78(4)455.pdf, accessed 01st May 2016).

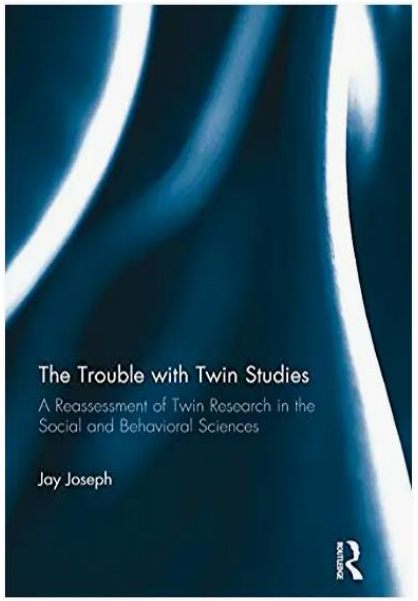




Jay Joseph

@jayjoseph22

American psychologist



Aug 6, 2022

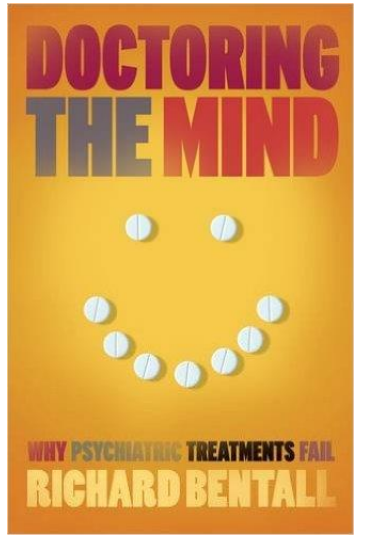
> We have been sold the depression "chemical imbalance" myth for decades.
> Same holds true for the "depression tied to genes" myth.

(1) Jay Joseph on Twitter: "We have been sold the depression "chemical imbalance" myth for decades. Same holds true for the "depression tied to genes" myth. https://t.co/iUF5WgXvSa" / Twitter

Richard Bentall

Professor of Psychology

UNIVERSITY OF LIVERPOOL



"Since the earliest days of professional psychiatry,
researchers have systematically exaggerated the extent to which
serious mental illness is caused by genes,
and underestimated the importance of environmental influences.
Recent evidence collected by molecular geneticists
gives us no reason to doubt this conclusion."

Richard Bentall, *Doctoring the Mind: Why Psychiatric Treatments Fail,* London: Penguin Books Ltd., 2009, p. 143

Twin and adoption studies

Regularly referred to → Evidence of genetic inheritance ✗

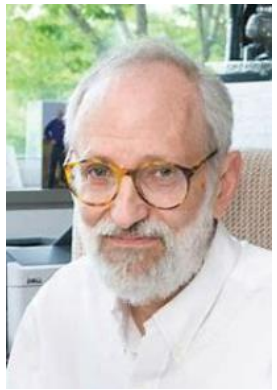
Direct evidence of genetic abnormality

↓

A basic defining requirement of any genetic disorder ✗

Only in psychiatry does this occur

Other/proper medical specialties know this to be deceitful practice



NEURON

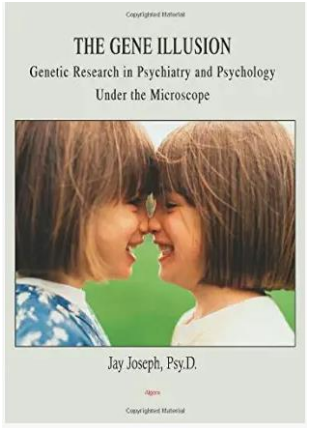
Jonathan Flint[1,*] and Kenneth S. Kendler[2]

2014 Feb 5

The Genetics of Major Depression

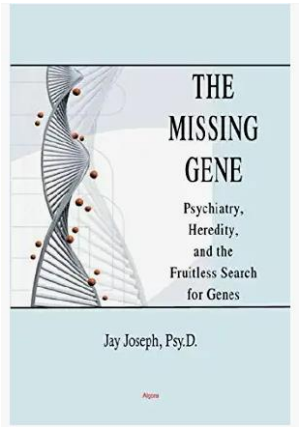
Surprisingly, no high-quality adoption study of MD has been performed, so our evidence of the role of genetic factors in its etiology comes solely from twin studies.

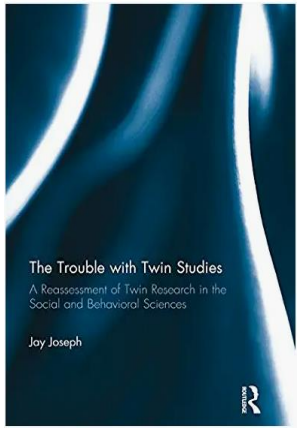
The Genetics of Major Depression - PMC (nih.gov)



Jay Joseph

Clinical & licensed psychologist





"The fact that psychiatric twin studies continue to be cited in support of genetics, largely uncritically,

speaks volumes about the scientific status of psychiatry in the 21st century.

Psychiatry's acceptance of twin studies is even more remarkable

in the context of the decades-long failure of molecular genetic research to uncover genes that investigators believe cause psychiatric disorders – research that is based largely on genetic presumptions

of the results of psychiatric twin studies".

http://www.madinamerica.com/2013/03/the-trouble-with-twin-studies/

What society's appointed experts/authorities say depression is

* Depression is a *medical illness*
* Depression is a *(medical) disease*
* Depression is a *leading cause of disability* and *burden of disease globally*
* Depression is a *mental illness*
* Depression is a *mental disorder*
* Depression is a *mood disorder*
* Depression is a *biological – and therefore medical - illness*
* Depression is a *brain disease/brain disorder*
* Depression is a *brain chemical imbalance* 
* Depression is a *genetic – and therefore medical - illness* 
* Depression is a *medical illness just like diabetes* 
* Depression can be *endogenous or reactive*
* There is *no cure for depression*

The order here . . .

⟹ * Definition of medical illness etc

* The three pillars of medical diagnosis

* Depression as a brain disease

* The real brain doctors

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Conclusion

The process of diagnosis of medical illnesses

CONSISTS OF

Three pillars

History Examination Investigations

IN RELATION TO

DEPRESSION

Three pillars principle is not met/attained

BECAUSE

DEPRESSION

Simply does not meet the criteria for a medical illness

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