RESEARCHER**ID**

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ResearcherID: B-4111-2009

Other Names: T.C. Chou; TC Chou

URL: http://www.researcherid.com/rid/B-4111-2009

My Institutions (more details)

Primary Institution: Memorial Sloan-Kettering Cancer Center

Sub-org/Dept:

Role: Researcher (Academic)

My Publications

My Publications (273)
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Collaboration Network
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Citation Distribution by year
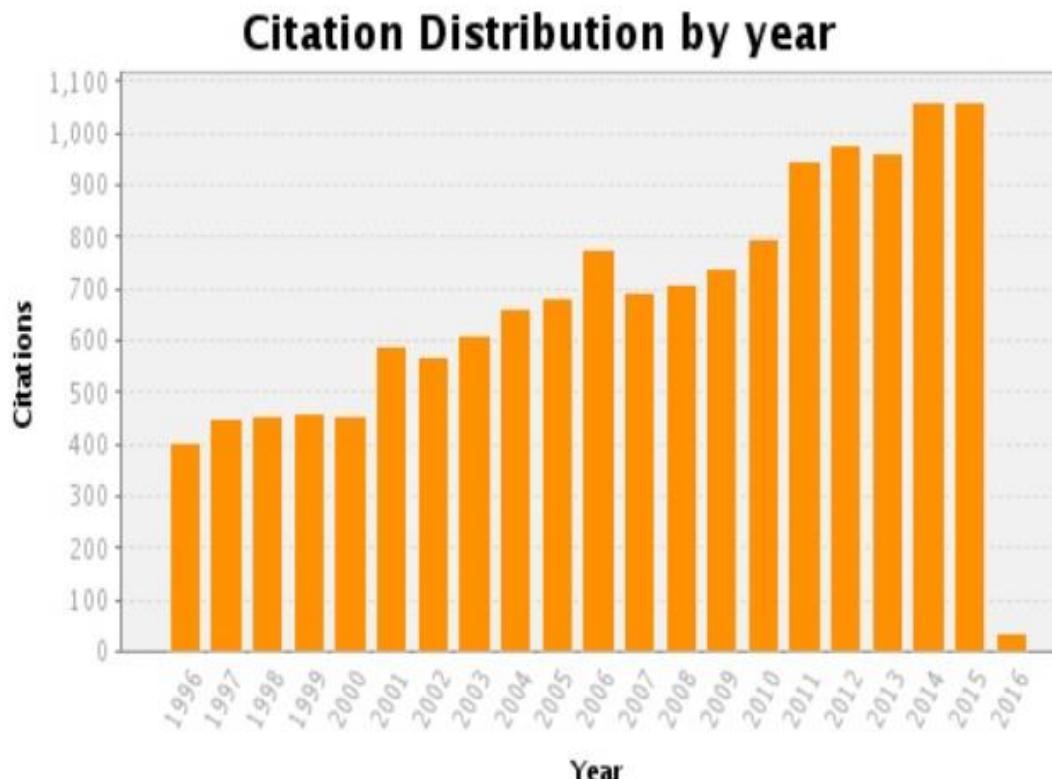
Total Articles in Publication List: **273**

Articles With Citation Data: **259**

Sum of the Times Cited: **17229**

Average Citations per Article: **66.52**

h-index: **58**

Last Updated: **01/31/2016 12:51 GMT**

Trends of Drug Combination Methods for Synergy Determination, 1900-2015*

| Method, Main Theory and Reference Source	Thomson Reuters Web of Science Citation DataBase				Total Citations Since Publication	Average Citations per year
	Trend of Citation					
	2011	2012	2013	2014		
A. Chou, TC & Talalay, P Adv. Eng. Regul. 1984; 22:27-55 [CI Method]	289	257	283	**325**	**3,648**	**117.6**
B. Chou, TC Pharmacol. Rev. 2006;58: 621-681 [CI Method]	119	146	158	**205**	**1,066**	**118.4**
C. Berenbaum, MC Pharmacol. Rev. 1989; 41: 93-141	42	37	46	42	**912**	33.8
D. Bliss, CI Ann. Appl. Biol. 1939; 26: 585-615	48	70	68	76	**705**	9.2
E. Steel GG & Peekham MJ Int. J. Radiant. Oncol. BioPhys. 1979; 5: 85-91	16	22	14	15	680	18.4
F. Greco, WR et al Pharamacol. Rev. 1995; 47: 331-385	33	38	56	56	**614**	29.2
G. Chou TC Cancer Res. 2010; 70: 440-446 [CI Method]	41	75	123	**174**	**631**	**126.2**
H. Elion GB, Singer S & Hitchings GH J. Biol. Chem. 1954; 208: 477-488	3	9	4	4	**449**	7.2
I. Tallarida, RJ J. Pharmacol. Exp. Ther. 2001; 298: 865-872	26	26	34	34	**353**	23.5
J. Prichard, MN & Shipman C Jr Antiviral Res. 1990; 14: 181-205	16	18	16	24	**342**	13.2
K. Webb J.L. Acad. Press. 1963; 1: 66-79, 488-512	8	9	12	6	**#262**	5.1
L. Loewe, S Pharmacol. Rev. 1957; 9: 237-242	3	0	4	5	**118**	2.0

*Based on Thomson Reuters Web of Science **All** Database Collection, as of January 15, 2016.

#Based on Google Scholar Citations, as of January 15, 2016.

Time Course of Cumulative Citations of Chou TC & Talalay P
Adv. Enz. Regul. 22: 27-55, 1984 (*Thomson-Reuters Web of Science*)

It received 1 citation in 1st year, 6 citations in 2nd year. Now in 2015, it received a total of 3,778 citations.
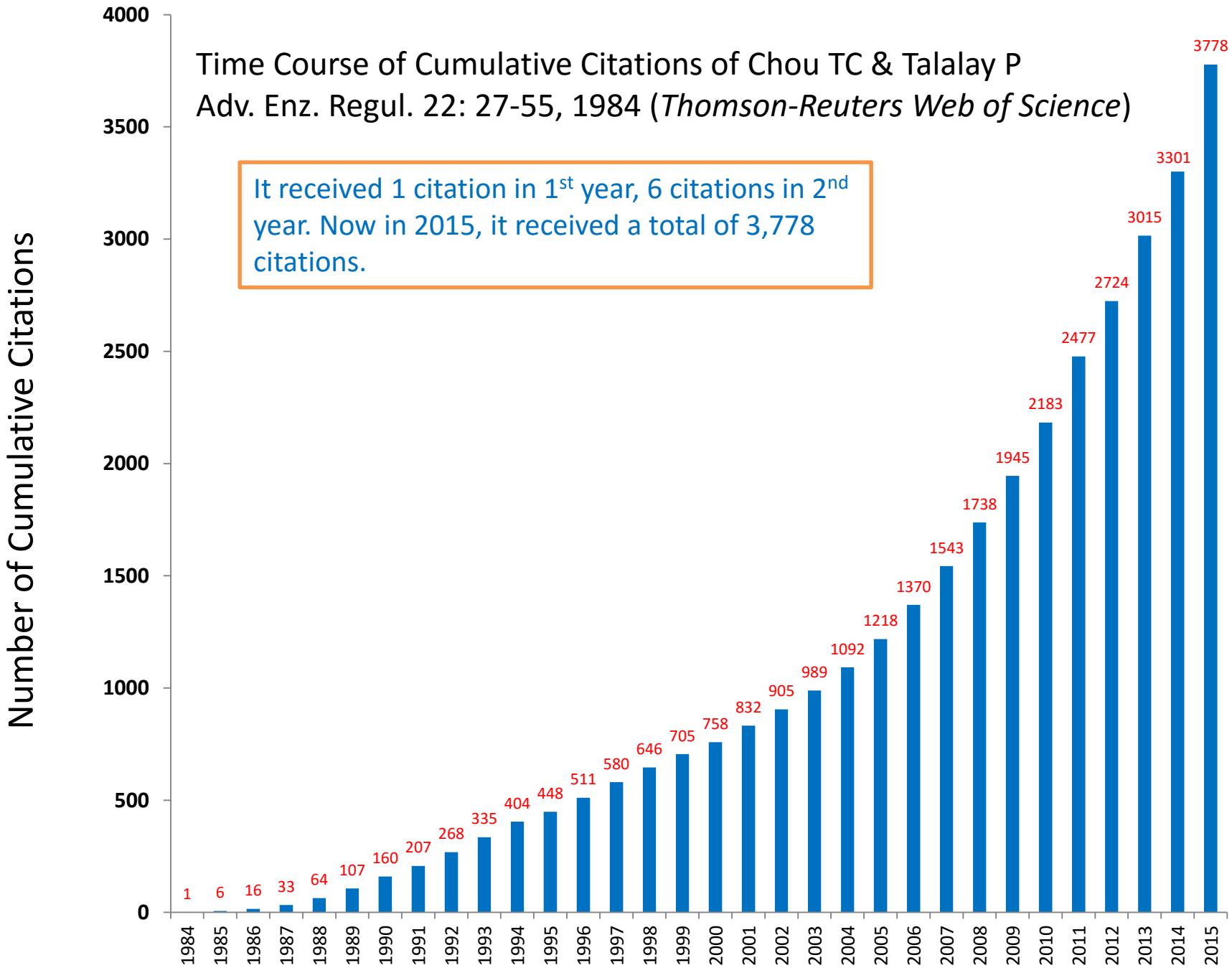
Quantitative-Analysis of Dose-Effect Relationships-
The Combined Effects of Multiple-Drugs or Enzyme-Inhibitors
## [The Combination Index Theorem]
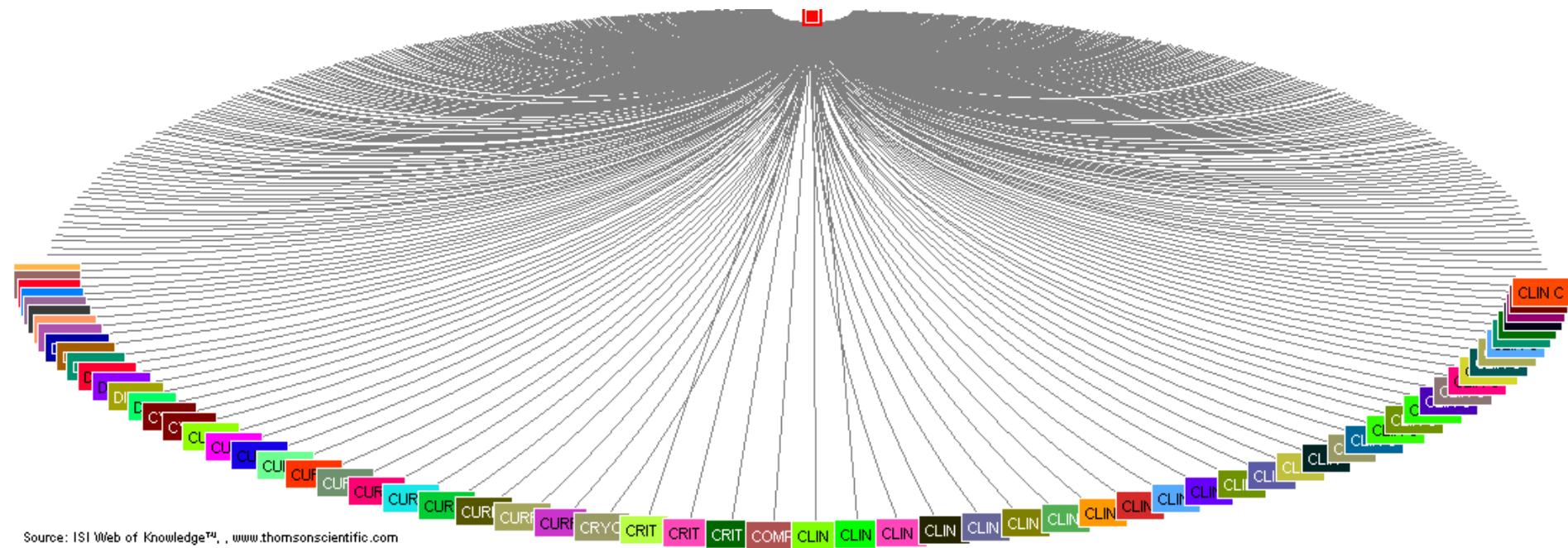
CHOU, TC; TALALAY, P
ADVANCES IN ENZYME REGULATION, 22: 27-55, 1984

Times Cited: 4,595 (3,658 *In* 693 Journals*)

(*Among The Most Broadly Cited *Theoretical Papers* by Journals *of All Time*)

"Theoretical Basis, Experimental Design, and Computerized Simulation of Synergism and Antagonism in Drug Combination Studies"

PHARM

ONCOLOGY
PEDIATRIC BLOOD
CLINICAL CANCER RE
AMERICAN JOURNAL OF P
BMC CANCER
INVESTIGATIVE OPHTHALMOLOGY & VISU
BMC SYSTEMS BIOLOGY
PLOS PATHOGENS
DRUG DEVELOPMENT RESEARCH
JOURNAL OF APPLIED MICROBIOLOGY
CELL DEATH & DISEASE
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIE
BMC MEDICINE
INTERNATIONAL IMMUNOPHARMA
MOLECULAR INTERVENTIONS
BULLETIN OF MATHEMATI
PLOS ONE
ANTICANCER RESEA
EPIGENETICS
ANTIMICROBIAL
INTEGRATIVE BI
MOLECULAR C
NUTRITION AN
NANOMEDICI
CANCER DIS
EMBO JOUR
CANCER
PROCEEDI
INVESTIG
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INTE
ANM
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BM
EPI
EF

CHOU TC, PHARMACOLOGICAL REVIEWS, 58: 621-681, 2006

Times Cited: 1,498 (1,072 in 404 Journals)*

*[The Most Cited / the Broadest Cited Pharmacology Article in the World by Journals Since 2006]

Drug Combination Studies and Their Synergy Quantification Using the Chou-Talalay Method. *Chou. T.C. Cancer Research 70: 440-446, 2010*
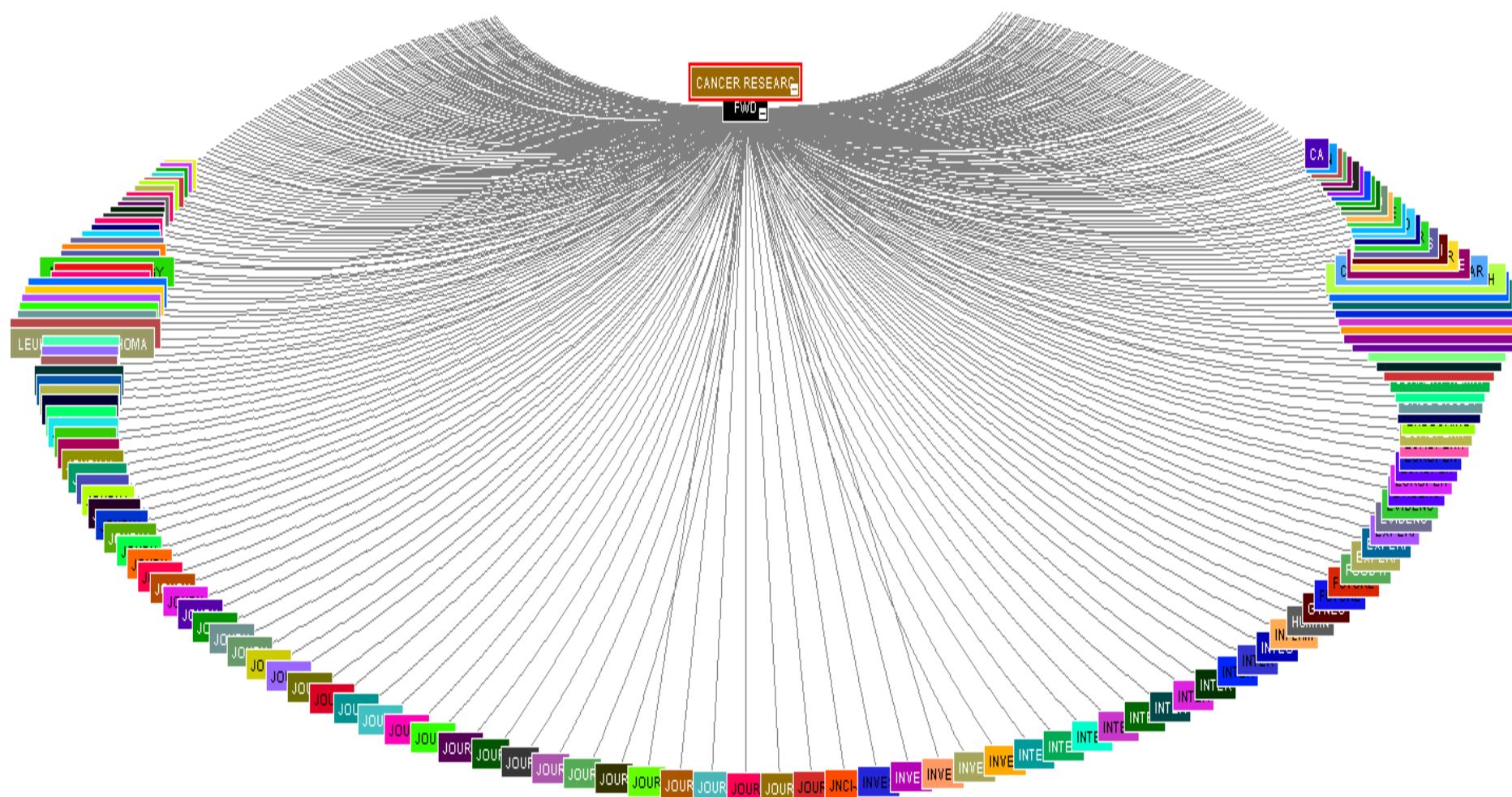
Cited by: *869 (640) papers in 237 Bio-medical Journals in 5 Years.*

Integrative Biology

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Cisplatin

Taxol
(+)

Vincristine
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Topotecan
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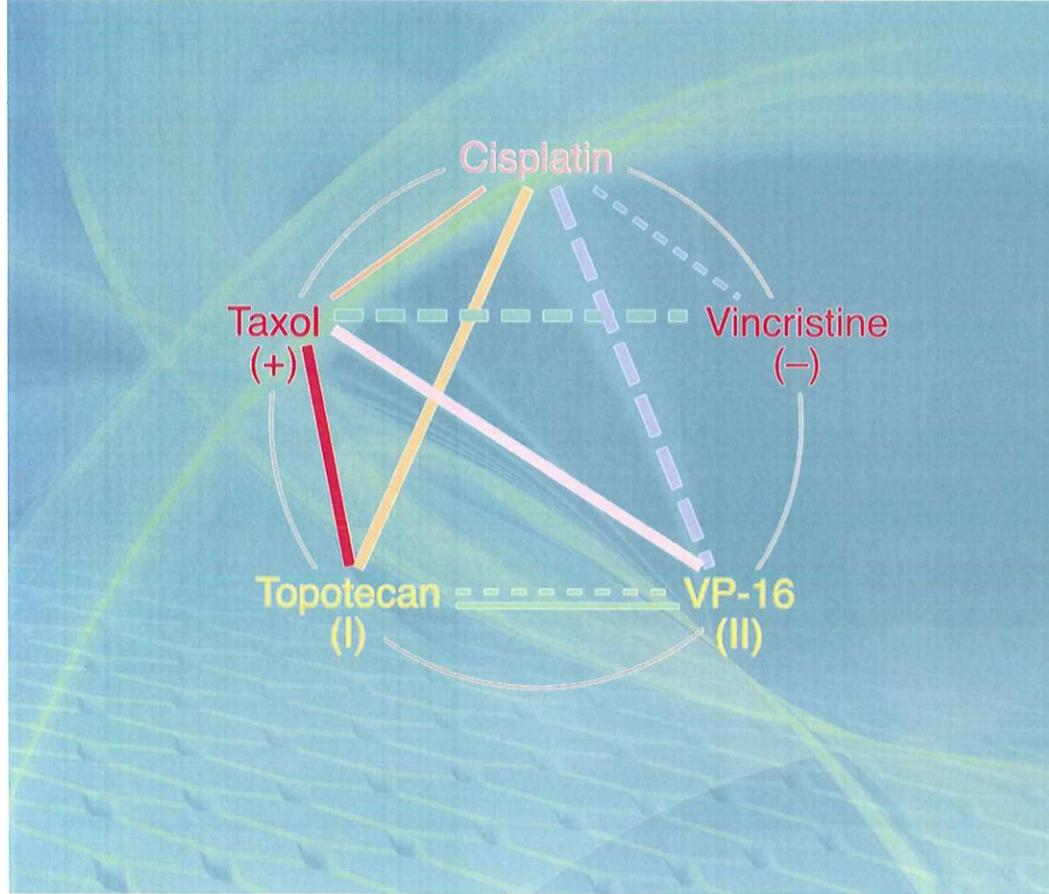
PERSPECTIVE
Chou
The mass-action law based algorithms for quantitative econo-green bio-research

1757-9694(2011)3:5;1-S

Integrative Biology Blog

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HOT: one equation to lead the way to greener biomedical sciences

05 May 2011

By [Francesca Burgoyne](#)

In this HOT Perspective article **Ting-Chao Chou** from the [Memorial Sloan-Kettering Cancer Center, New York](#) presents his vision for a new era of smarter, greener biomedical research and drug discovery.

The algorithm of the **median-effect equation** based on the **mass-action law,** along with experimental design and computer simulation, should allow a significant reduction in the number of data points required to yield useful bioinformatics on the relationship between dose and effect. He poses that a theoretical minimum of a mere two data points are required to construct dose-effect curves – if they are accurately determined. This unified theory, he believes, should pave the way for more efficient, cost-effective research and ethical clinical trials.

This HOT article received glowing reports from our referees and is featured on the front cover of our latest issue – **[Issue 5](#)**. Why not take a look – it's currently **free** to access:

[The mass-action law based algorithms for quantitative econo-green bio-research](#)

Synergy

International Journal for Synergy Research in Life Sciences

CONTENTS

Journal Inauguration Announcement
September 23, 2014
Mip-Tec, Basel, Switzerland
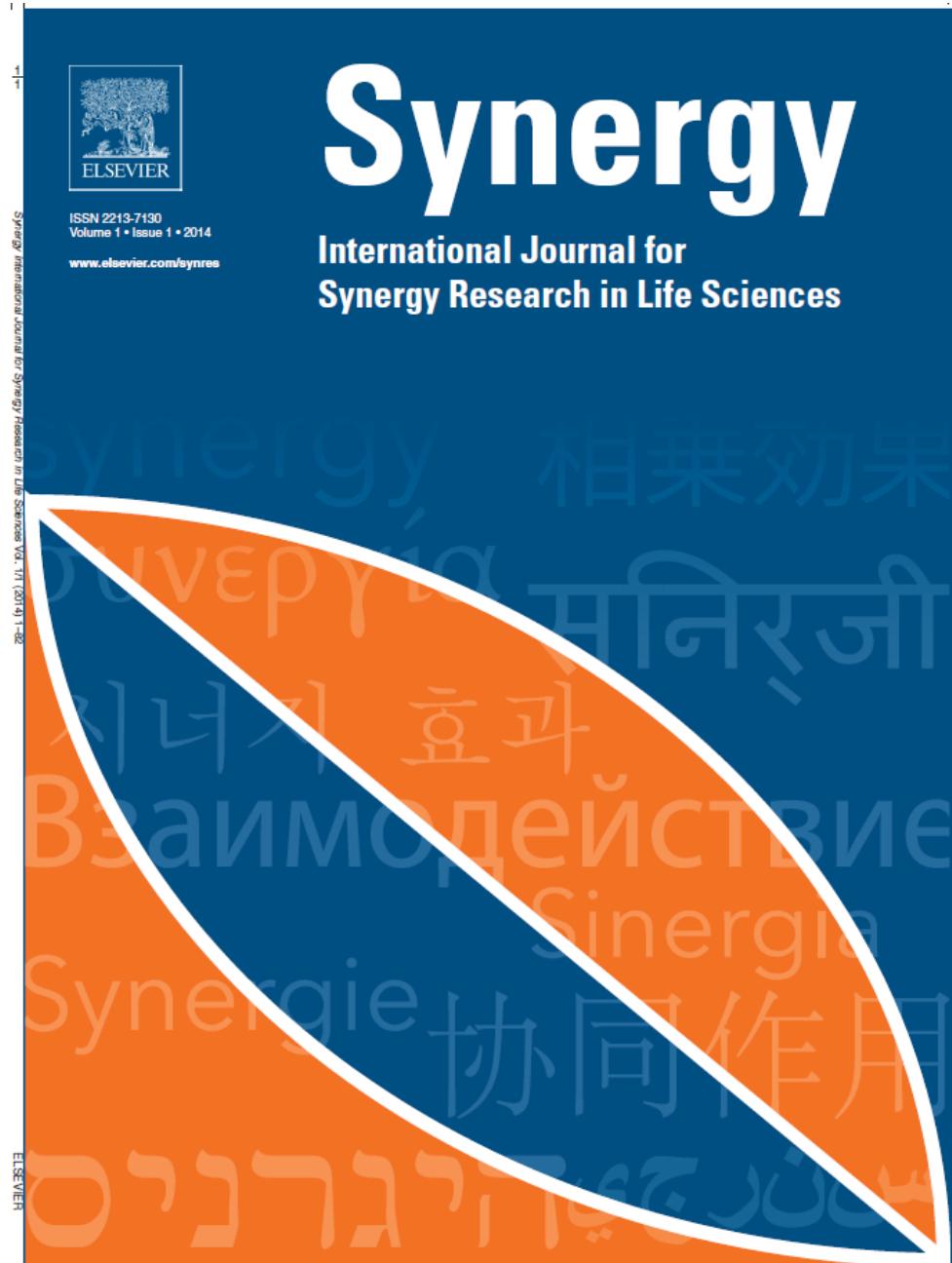
Synergy

International Journal for Synergy Research in Life Sciences

Synergy
International Journal for
Synergy Research in Life Sciences
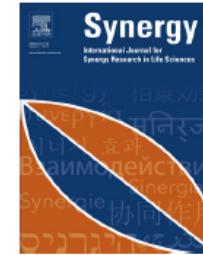
REVIEW PAPER

Frequently asked questions in drug combinations and the mass-action law-based answers

CrossMark

Ting-Chao Chou*

Molecular Pharmacology & Chemistry Program, Memorial Sloan-Kettering Cancer Center, New York, NY 10065, USA

Summary   Drug combinations have been widely used in the treatment of the most dreadful diseases, such as cancer and AIDS. In the search for synergistic combinations for therapy, numerous articles have been published during the past century. However, the term "synergy" has at least 20 different definitions in literature but none supports others. The confusion on synergy claims has far reaching consequences in biomedical research, drug discovery and development, regulation, and medical care of patients. This article reviews the current status and enlists the frequently occurred pit-falls, misconceptions and common errors in drug combination studies. The questions and issues are contemplated to be answered and clarified with the physico-chemical algorithms of the mass-action law, specifically with the unified theory of the median-effect equation and its combination index theorem for drug combinations. The derived theory, algorithm and its computer simulation lead to a quantitative indexed bioinformatics, and econo-green bio-research using small number of data points.