

SOURCE: Thomson Reuters, Research Services Group, 2002-09

Year	Medicine	Chemistry	Physics	Economics
<b>2009</b>	<ul style="list-style-type: none"> <li>● E. H. Blackburn, C. W Greider, J. W Szostak (telomeres)</li> <li>● J. E Rothman, R. Schekman (vesicle transport)</li> <li>● S. Ogawa (fMRI)</li> </ul>	<ul style="list-style-type: none"> <li>● M. Grätzel (solar cells)</li> <li>● J. K. Barton, B. Giese, G. B. Schuster (charge transfer in DNA)</li> <li>● B. List (organic asymmetric catalysis)</li> </ul>	<ul style="list-style-type: none"> <li>● Y. Aharonov, M. V. Berry (Aharonov-Bohm effect and Berry phase)</li> <li>● J. I. Cirac, P. Zoller (quantum optics)</li> <li>● J. B. Pendry, S. Shultz, D. R. Smith (negative refraction)</li> </ul>	<ul style="list-style-type: none"> <li>● E. Fehr, M. Rabin (fairness)</li> <li>● W. D. Nordhaus, M. L. Weitzman (environmental economics)</li> <li>● J. B. Taylor, J. Gali, M. L. Gertler (monetary policy)</li> </ul>
<b>2008</b>	<ul style="list-style-type: none"> <li>● S. Akira, B. A. Beutler, J. Hoffmann (toll-like receptors)</li> <li>● V. R. Ambros, G. Ruvkun (miRNAs)</li> <li>● R. Collins, R. Peto (meta-analysis)</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Roger Y. Tsien (green fluorescent protein)</b></li> <li>● C. M. Lieber (nanomaterials)</li> <li>● K. Matyjaszewski (ATRP)</li> </ul>	<ul style="list-style-type: none"> <li>● A. K. Geim, K. Novoselov (graphene)</li> <li>● V. C. Rubin (dark matter)</li> <li>● R. Penrose, D. Schechtman (Penrose tilings, quasicrystals)</li> </ul>	<ul style="list-style-type: none"> <li>● L. P. Hansen, T. J. Sargent, C. A. Sims (dynamic modelling)</li> <li>● M. S. Feldstein (public economics)</li> <li>● A. A. Alchian, H. Demsetz (property rights)</li> </ul>
<b>2007</b>	<ul style="list-style-type: none"> <li>● F. H. Gage (neurogenesis)</li> <li>● R. J. Ellis, F. U. Hartl, A. Horwich (chaperones)</li> <li>● J. Massague (TGF-beta)</li> </ul>	<ul style="list-style-type: none"> <li>● S. J. Danishefsky (epothilones)</li> <li>● D. Seebach (synthetic organic methods)</li> <li>● B. M. Trost (organometallic and bio-organic chemistry)</li> </ul>	<ul style="list-style-type: none"> <li>● S. Iijima (nanotubes)</li> <li>● A. B. McDonald (neutrino mass)</li> <li>● M. J. Rees (cosmology)</li> </ul>	<ul style="list-style-type: none"> <li>● E. Helpman, G. M. Grossman (international trade)</li> <li>● J. Tirole (industrial organisation)</li> <li>● R. B. Wilson, P. R. Milgrom (auctions)</li> </ul>
<b>2006</b>	<ul style="list-style-type: none"> <li>● <b>Mario Capecchi, Martin J. Evans and Oliver Smithies (gene targeting) (won in 2007)</b></li> <li>● P. Chambon, R. M. Evans, E. V. Jensen (hormone receptors)</li> <li>● A. J. Jeffreys (DNA profiling)</li> </ul>	<ul style="list-style-type: none"> <li>● G. R. Crabtree, S. L. Schreiber (small molecule chembio)</li> <li>● T. J. Marks (organometallic)</li> <li>● D. A. Evans, S. V. Ley (natural products)</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Albert Fert and Peter Grünberg (GMR) (won in 2007)</b></li> <li>● A. H. Guth, A. Linde, P. J. Steinhart (inflation)</li> <li>● E. Desurvire, M. Nakazawa, D. N. Payne (erbium-doped fibre amplifiers)</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Paul Krugman (trade) (won in 2008)</b></li> <li>● J. N. Bhagwati, A. K. Dixit (int'l trade)</li> <li>● D. W. Jorgenson (econometrics)</li> <li>● O. D. Hart, B. R. Holmstrom, O. E. Williamson (corporate governance)</li> </ul>
<b>2002-2005</b>	<ul style="list-style-type: none"> <li>● M. J. Berridge (cell signalling)</li> <li>● A. G. Knudson, B. Vogelstein, R. A. Weinberg (tumour suppressor genes)</li> <li>● F. S. Collins, E. S. Lander, J. C. Venter (gene sequencing)</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Robert H. Grubbs (metathesis method) (predicted and won in 2005)</b></li> <li>● A. Bax (NMR and proteins)</li> <li>● K. C. Nicolaou (total synthesis, taxol)</li> <li>● G. M. Whitesides, S. Shinkai, J. F. Stoddart (nano self-assembly)</li> </ul>	<ul style="list-style-type: none"> <li>● M. B. Green, J. H. Schwarz, E. Witten (string theory)</li> <li>● Y. Tokura (condensed matter)</li> <li>● S. Nakamura (gallium nitride-based LEDs)</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Robert F. Engle, Clive W. J. Granger (time series, ARCH and cointegration) (predicted and won in 2003)</b></li> <li>● <b>Daniel Kahneman (decision under uncertainty) (predicted and won in 2002)</b></li> <li>● R. J. Barro (growth)</li> <li>● E. F. Fama, K. R. French (EMH)</li> <li>● P. M. Romer (growth)</li> <li>● R. H. Thaler (behavioural)</li> </ul>

Thomson Reuters has a long history of using citation data to study the characteristics of the research records of Nobel prizewinners, dating back to studies by Eugene Garfield in the 1960s. Since 2002, predictions of future winners have appeared on the web pages of Thomson Reuters. The table above summarises the predictions, and the emboldened entries highlight the successful ones to date. It also provides those names newly chosen for 2009. It should be emphasised that individuals selected in previous years are still considered contenders for a Nobel prize.

The record of successful forecasting indicates that citation profiles provide a powerful indicator of peer esteem. Take chemistry. Reviewing just the top one tenth of 1 per cent still leaves 700 names to review. Using a variety of citation measures, Thomson Reuters focuses on researchers who rank, typically, in the top one hundredth of 1 per cent. Other factors are then considered, including the receipt of prestigious prizes in the past. Add a pinch of intuition, and potential winners bubble to the surface.

For more information, see: <http://scientific.thomson.com/nobel/>

**To present the Nobel predictions, the table *Nature vs Science* – research impact, field by field, 1999-2009, will be printed next week.**