

## Survey

### “BIOTECHNOLOGIES AND THE GOVERNANCE OF INNOVATION”

#### METHODOLOGY

The survey was conducted by phone on a quota sample of 994 subjects, representative of Italian population aged over 19. The sampling procedure included two stages: first, provinces were stratified by geographical area. Selection was then performed in order to make the likelihood of including each province proportional to the size of each stratum. At the second stage the sample was divided on the basis of age and gender variables. Sample data were weighed using the distribution of educational levels across the Italian population by gender and age (four age groups: 19-29, 30-44, 45-64, oltre 64). Interviews were carried out during the last two weeks of march 2003.

The survey is part of a series of studies on “Biotechnologies and Public Opinion in Italy”, with the two past editions conducted in 2000 and 2001. This edition of the study was carried out under the supervision of Massimiano Bucchi (Università di Trento), Federico Neresini (Università di Padova) and Giuseppe Pellegrini (Università di Padova).

The survey received financial support by Bassetti Foundation for Responsibility in Innovation ([www.fondazionebassetti.org](http://www.fondazionebassetti.org)) and by ‘Observe – Science and Society’ Cultural Association ([www.observe.it](http://www.observe.it)).

#### MAIN TABLES OF RESULTS

1. Here are some statements. For each one, please tell me whether you think it is true or false ( %; 2003 n = 994; 2001 n = 1017; 2000 n = 1022)

	TRUE			FALSE			DON'T KNOW		
	2003	2001	2000	2003	2001	2000	2003	2001	2000
- Ordinary tomatoes do not contain genes while genetically modified tomatoes do	38	30	32	33	27	29	29	43	39
– By eating genetically modified fruit, a person's genes could also become modified	30	21	29	45	42	36	25	37	35
- Genetically modified animals are always bigger than ordinary ones	45	37	31	38	25	27	17	38	42
- It is possible to transfer animal genes into plants	22	15	26	41	37	36	37	48	38
- Cloning human cells produces an exactly identical individual, both in physical and psychological terms	35	-	-	48	-	-	17	-	-

2. And now, some questions about various applications which are coming out of modern biotechnology. For each of them, could you please tell me to what extent do you consider it useful/risky/morally acceptable ( %;  $n = 994$ )

To what extent do you consider <b>USEFUL</b> :	not useful at all	Not very useful	Quite useful	Very useful	Don't know
Modifying gens of fruit/vegetables to make them more resistant to insect pests	29	33	28	6	4
Introducing human genes into animals to produce organs for human transplants, such as into pigs for human heart transplants	26	22	33	10	9
Using human embryos in research aimed at curing diseases like Alzheimer or Parkinson	7	15	50	21	7
Using cloning to allow infertile women to have children	72	12	7	3	6
To what extent do you consider <b>RISKY</b> :	not risky at all	Not very risky	Quite risky	Very risky	Don't know
Modifying gens of fruit/vegetables to make them more resistant to insect pests	4	20	49	19	8
Introducing human genes into animals to produce organs for human transplants, such as into pigs for human heart transplants	5	18	48	17	12
Using human embryos in research aimed at curing diseases like Alzheimer or Parkinson	8	28	38	10	16
Using cloning to allow infertile women to have children	8	9	39	37	7
Do you consider <b>MORALLY ACCEPTABLE</b> ?:	yes	no	Don't know No response		
Modifying genes of fruit/vegetables to make them more resistant to insect pests	36	52	12		
Introducing human genes into animals to produce organs for human transplants, such as into pigs for human heart transplants	38	52	10		
Using human embryos in research aimed at curing diseases like Alzheimer or Parkinson	62	26	12		
Using cloning to allow infertile women to have children	13	81	6		

3. In general, do you think that research on medical biotechnologies should be continued in Italy? ( %; n=994)

	%	Why?	%
<b>yes</b>	<b>84</b>	Science should proceed without any restriction	21
		in the future, diseases which are now deadly could be cured	55
		there is no point in imposing regulations and control : there will always be some scientists willing to practice such research	6
		other reasons	2
<b>no</b>	<b>8</b>	Man should not interfere with Nature	4
		We do not know exactly what the risks are	2
		I do not trust scientists	0
		there are too many interests on the part of pharmaceutical companies	2
<b>don't know</b>	<b>8</b>	I have no competence to decide	5
		in my view, pros and cons balance	1
		it is not clear to me what medical biotechnologies are	2
<b>Total</b>	<b>100</b>		<b>100</b>

4. In general, do you think that research on agro-food biotechnologies (GMOs) should be continued in Italy? ( %; n=994)

	%	Why?	%
<b>yes</b>	<b>57,3</b>	Science should proceed without any limitations	20,4
		GM food could help feed Third World population	25,7
		GM food will make fruit and vegetables cheaper	3,5
		other countries like the US have long time used GMOs	3,6
		other reasons	1,5
<b>no</b>	<b>33,4</b>	Man should not interfere with Nature	14,8
		We do not know exactly what the risks are	11,6
		I do not trust scientists	1,0
		everything is driver by the interests of multinational companies	5,7
		other reasons	0,1
<b>don't know</b>	<b>9,3</b>	I have no competence to decide	6,3
		in my view, pros and cons balance	0,9
		it is not clear to me what GMOs are	1,9
		other reasons	0,2
<b>Total</b>	<b>100</b>		<b>100</b>

5. In your opinion, scientists are currently in agreement or disagreement among themselves on the issue of human cloning? (%; n= 994)

	%
In disagreement	83,3
In agreement	9,0
Don't know	7,3
No response	0,4

6. In your opinion, scientists are currently in agreement or disagreement among themselves on the issue of GMOs? (%; n= 994)

	%
In disagreement	68,6
In agreement	14,4
Don't know	16
No response	1,0

7. Which thing do you consider more dangerous among those listed here ? (%; n= 994)

	%
Traffic pollution	53,9
Mobile phone radiations	10,3
GM food	14,9
Electromagnetic emissions from antennas/pylons	14,1
Vaccinating children against infectious diseases	4,5
No response	2,3

8. You would be favourable to allowing the cloning of human beings if..  
(%; n=994)

	%
..there were absolute certainties of no risks for the baby born	8
..possible risks were equal or less compared to other assisted reproduction techniques	1
I would not allow human cloning under any conditions	89
No response	2
Total	100

9. Now I would like to know which of the following sources of information you have confidence in, to tell you the truth about modern biotechnology (%; n=994)

	%
Consumer organizations	28
Environmental organizations	18
Political parties	3
Religious organizations	7
Public Authorities	6
Industry and entrepreneurs	2
Universities and scientists	36
Total	100

10. Which one of the following bodies/subjects should decide whether to continue research on biotechnologies? (%; *n*=994)

	%
The National Government	9,0
The European Union	29,9
Entrepreneurs funding research	2,0
Scientists	11,9
The Catholic Church	2,2
All Citizens	20,9
Potential Beneficiaries of applications	5,1
No one is in a position to decide	14,4
Don't know- No response	4,5

11. How would you describe science? For each adjective please tell me to what extent it applies to the way you see science today (average scores for each adjective (*n*=994))

