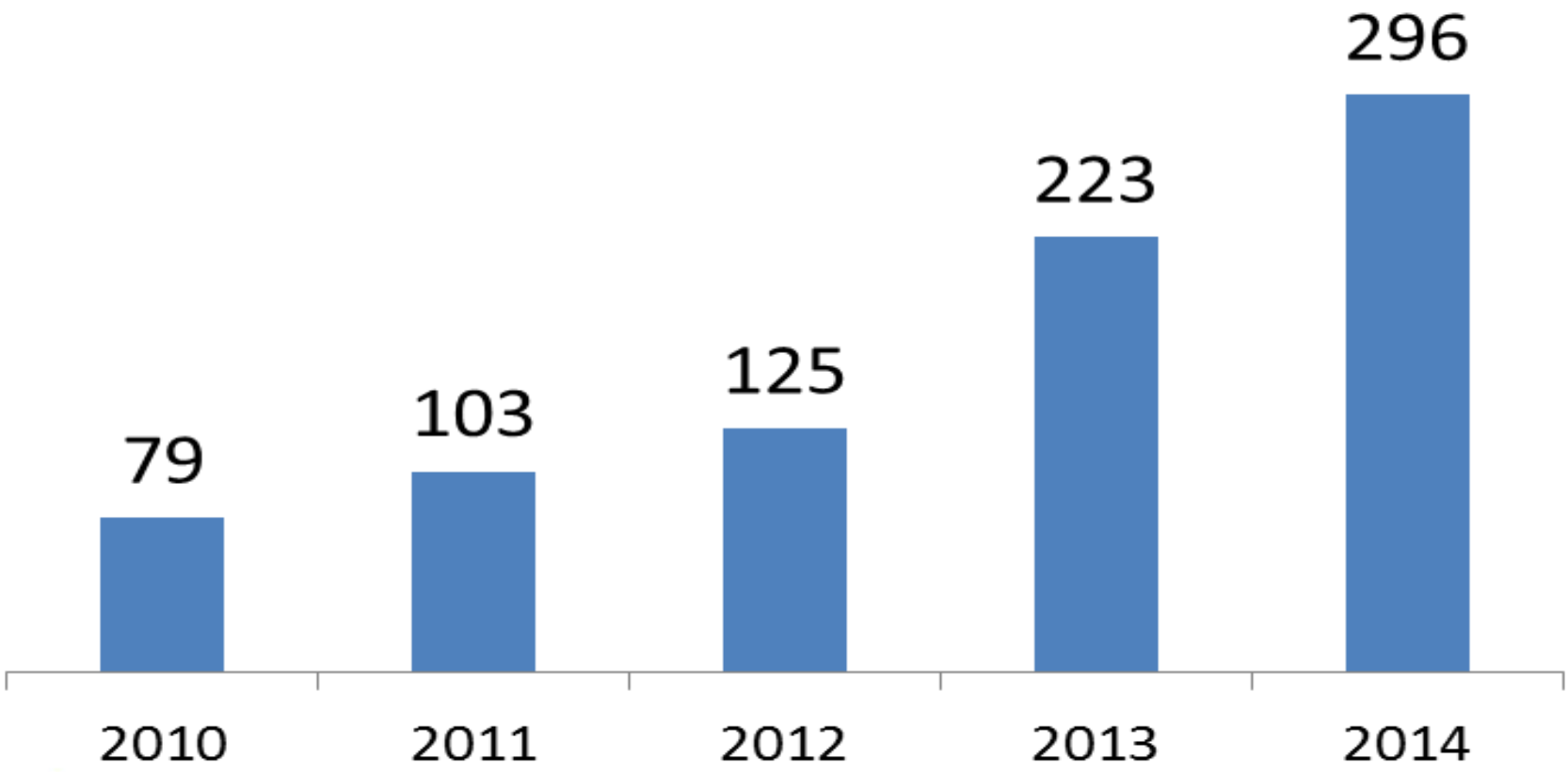
Embryo's scoren:
Je staat er niet alleen voor

Hanna Kostelijk

VU medisch centrum

deelnemers

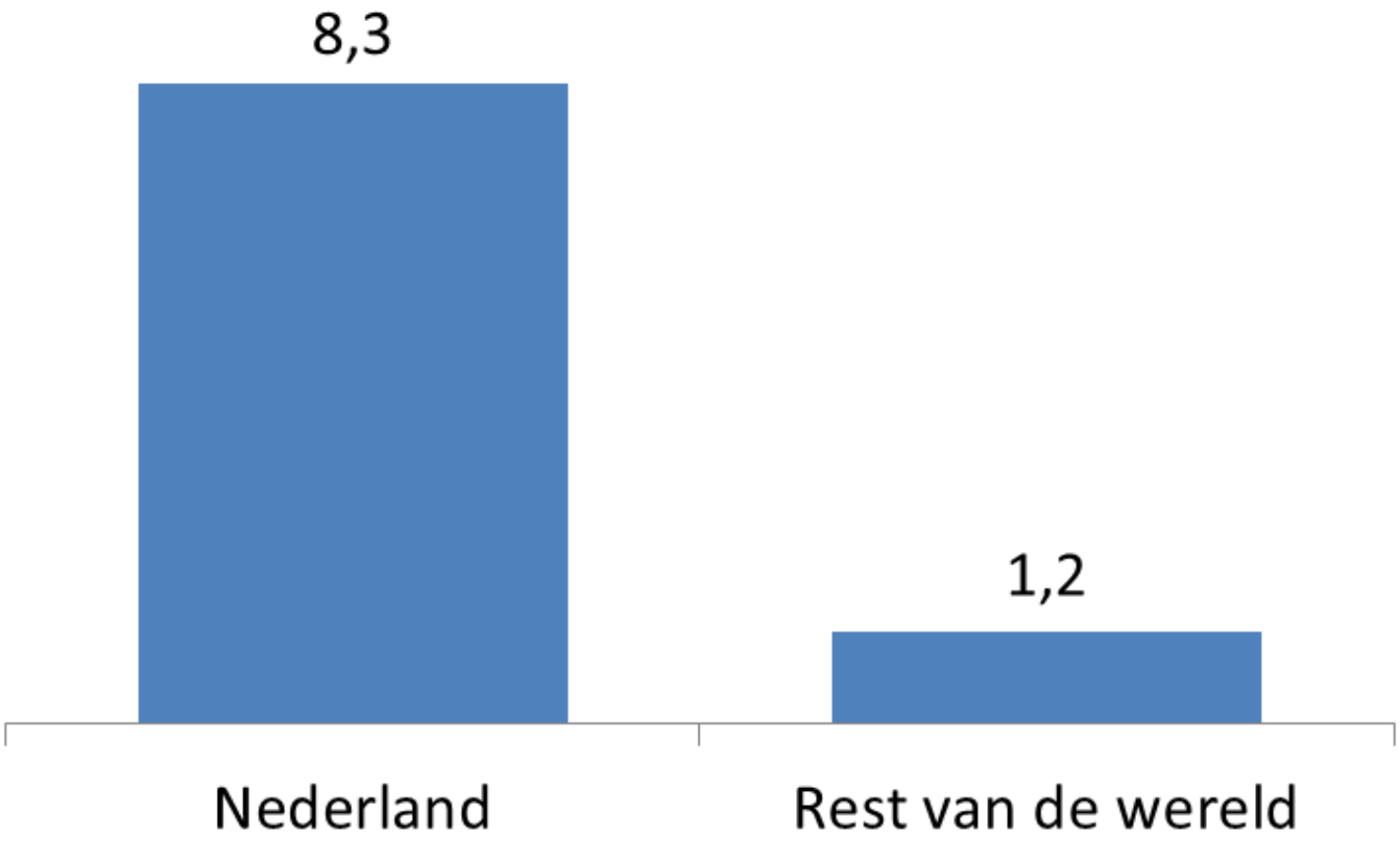


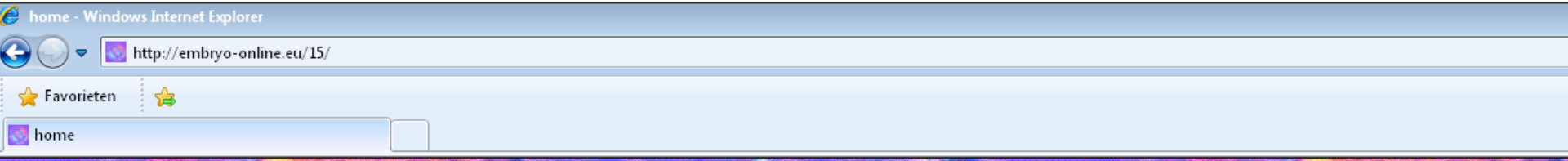
VU medisch centrum

Totaal # deelnemers eind 2014

Land	labs	Geregistr. gebruikers	Gem. # gebr./lab
Nederland	15	125	8.3
Rest van de wereld	142	171	1.2
Totaal: 42 landen	**157**	**296**	**1,88**

deelnemers/lab





main menu

- home
- score grading

results

- archive all labs

login menu

username

password

remember me

login

forgot your password?
forgot your username?

welcome

Countdown to the next survey: **1 day**

Embryo-online.eu is a project carried out in collaboration with the IVF-Laboratorium VUmc (VU University Medical Center, Amsterdam, the Netherlands).
Embryo-online is fully realized with open-source applications and it is free. It is a simple, easy and quick tool to compare the overall embryo-score and ET-selec
other participating laboratories.
You can also compare your personal scores with the scores of your colleagues working in your lab. The latter is only possible after registration.
The goal is to optimize standardization in embryo-scoring and grading and reducing differences in results between participant.

Voting is possible from **March 11th until the 25th of March 2015**.

Surveys 2015

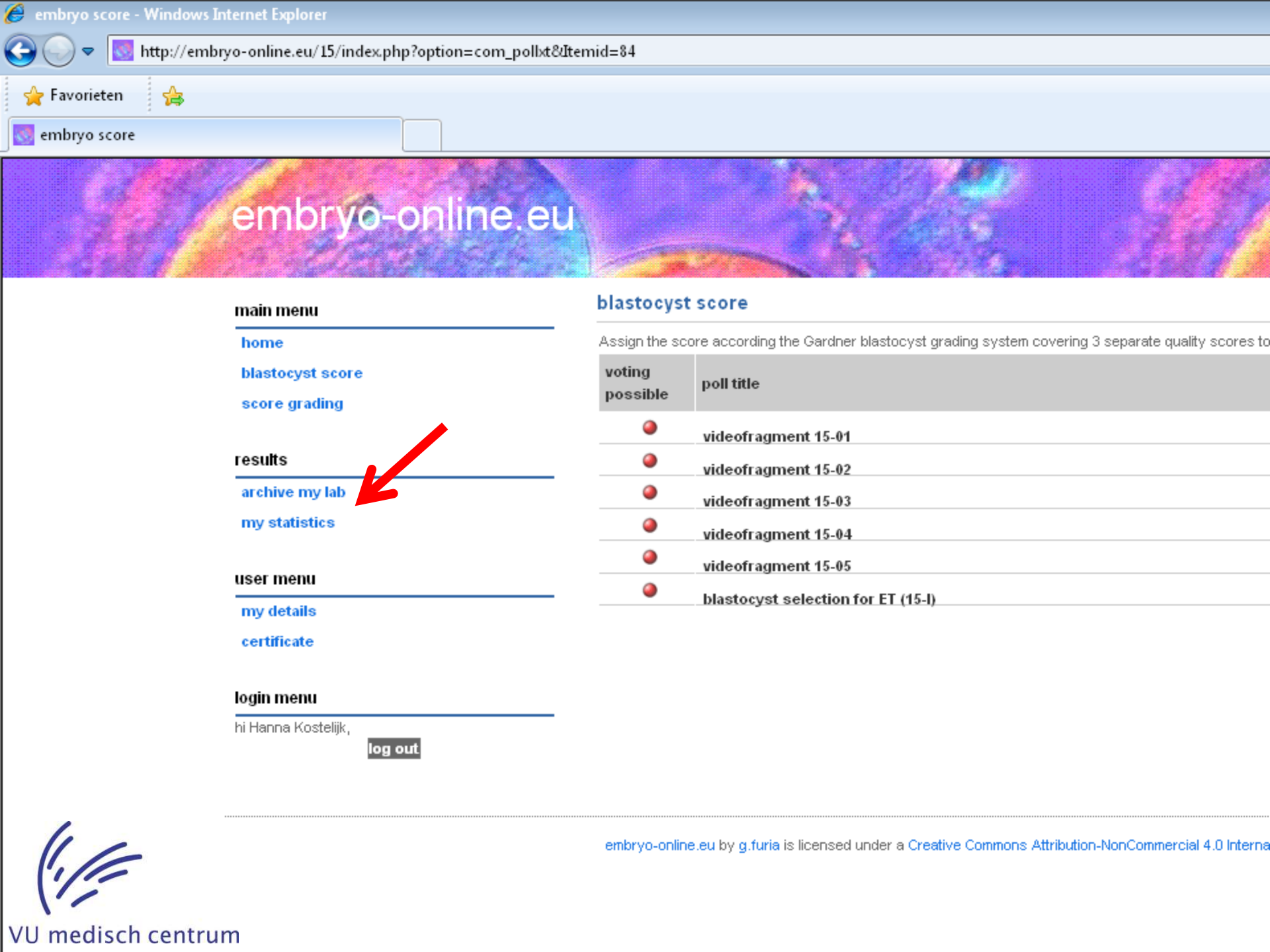
survey	start	close
mar-15	11-03-2015	25-03-2015
jun-15	10-06-2015	24-06-2015
sep-15	09-09-2015	23-09-2015
dec-15	02-12-2015	16-12-2015

Participants (geo chart)

survey participants	#
registered users	301
labs	223
countries	48

country	# registered users	# labs
	1	1
Argentina	4	3
Australia	3	3
Austria	3	3
Belgium	7	3
Brazil	3	3
Bulgaria	1	1
Canada	19	11
Denmark	5	3

VU medisch centrum


embryo score - Windows Internet Explorer
http://embryo-online.eu/15/index.php?option=com_pollxt&Itemid=84
Favorieten
embryo score
embryo-online.eu
main menu
home
blastocyst score
score grading
results
archive my lab
my statistics
user menu
my details
certificate
login menu
hi Hanna Kostelijk,
log out
blastocyst score
Assign the score according the Gardner blastocyst grading system covering 3 separate quality scores to
voting possible
poll title
videofragment 15-01
videofragment 15-02
videofragment 15-03
videofragment 15-04
videofragment 15-05
blastocyst selection for ET (15-I)
embryo-online.eu by g.furia is licensed under a Creative Commons Attribution-NonCommercial 4.0 Interna
VU medisch centrum

my statistics

blastocyst

According the Gardner blastocyst grading system covering the Blastocyst development stage.

blastocyst videofragment	my answer (value)	vumc.nl			all users			z score	
		avg	std	(n)	avg	std	(n)	z1 (vumc.nl)	z2 (all users)
videofragment 13-01	B4 Expanded blastocyst, cavity larger than the embryo (4)	3.69	0.61	(13)	3.99	0.83	(76)	0.51	0.01
videofragment 13-02	B4 Expanded blastocyst, cavity larger than the embryo (4)	3.15	0.53	(13)	3.08	0.69	(75)	1.60	1.33
videofragment 13-03	B4 Expanded blastocyst, cavity larger than the embryo (4)	4.00	0.00	(13)	4.04	0.48	(74)	0.00	0.08
videofragment 13-04	B4 Expanded blastocyst, cavity larger than the embryo (4)	3.69	0.46	(13)	3.88	0.88	(74)	0.67	0.14
videofragment 13-05	B4 Expanded blastocyst, cavity larger than the embryo (4)	3.23	0.42	(13)	3.31	0.93	(74)	1.83	0.74
videofragment 13-06	B4 Expanded blastocyst, cavity larger than the embryo (4)	3.85	0.66	(13)	4.34	0.92	(124)	0.23	0.37
videofragment 13-07	B3 Full blastocyst, cavity completely filling the embryo (3)	1.83	0.55	(12)	1.43	0.56	(120)	2.13	2.80
videofragment 13-08	B4 Expanded blastocyst, cavity larger than the embryo (4)	3.67	0.47	(12)	3.56	0.84	(116)	0.70	0.52
videofragment 13-09	B4 Expanded blastocyst, cavity larger than the embryo (4)	3.75	0.43	(12)	3.73	0.59	(117)	0.58	0.46
videofragment 13-10	B4 Expanded blastocyst, cavity larger than the embryo (4)	3.92	0.28	(12)	3.76	0.62	(117)	0.29	0.39
videofragment 13-16	B4 Expanded blastocyst, cavity larger than the embryo (4)	3.33	0.47	(9)	3.25	0.76	(129)	1.43	0.99
videofragment 13-17	B3 Full blastocyst, cavity completely filling the embryo (3)	3.00	0.47	(9)	2.77	0.64	(127)	0.00	0.36
videofragment 13-18	B3 Full blastocyst, cavity completely filling the embryo (3)	3.56	0.50	(9)	3.56	1.01	(126)	1.12	0.55
videofragment 13-19	B4 Expanded blastocyst, cavity larger than the embryo (4)	3.56	0.68	(9)	3.68	0.64	(124)	0.65	0.50
videofragment 13-20	B4 Expanded blastocyst, cavity larger than the embryo (4)	4.00	0.94	(9)	4.20	1.01	(123)	0.00	0.20
videofragment 14-01	B4 Expanded blastocyst, cavity larger than the embryo (4)	3.38	0.62	(13)	3.50	0.75	(144)	1.00	0.67

home - Windows Internet Explorer

http://embryo-online.eu/15/index.php?option=com_content&view=frontpage&Itemid=73

Favorieten

home

embryo-online.eu

main menu

- home
- blastocyst score
- score grading

results

- archive my lab
- my statistics

user menu

- my details
- certificate

login menu

hi Hanna Kostelijk,

log out

welcome

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country	# registered users	# labs
	1	1

VU medisch centrum

Certificate of participation | Print |

embryo-online.eu

This is to certify that

Hanna Kostelijk

(vumc.nl)

in 2014 has participated in

100%

of the embryo-online surveys

Average z-score in 2014(*)

0.578

In 2013, your participation percentage was 97% and your z-score was 0.752.

Amsterdam, March 2015
G.Furia, embryo-online.eu administrator

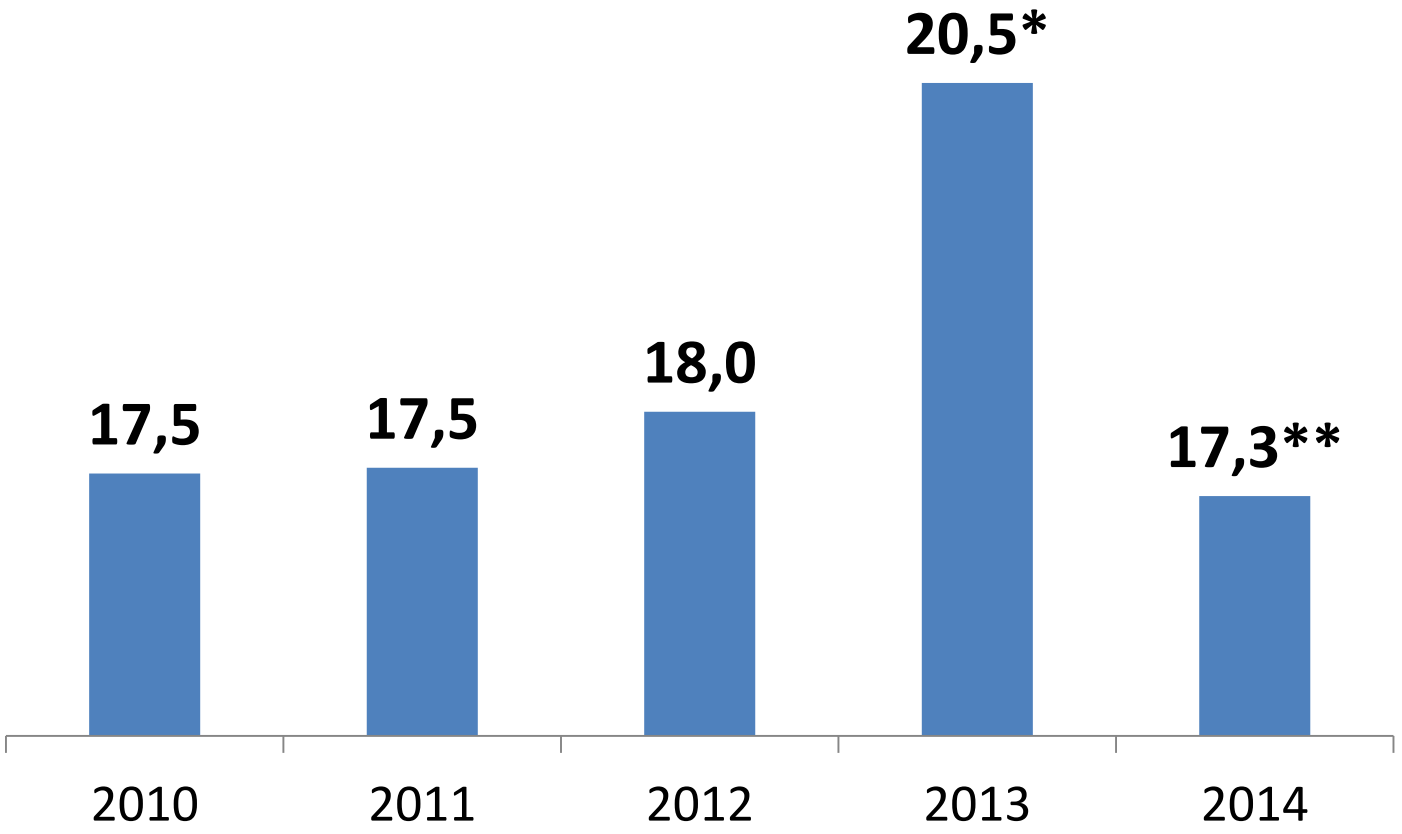
(*)average distance of all my answers value from the mean (avg) measured in standard deviations.

VU medisch centrum

Gem. VC%

(gradatie + aantal cellen) en blastocyst score

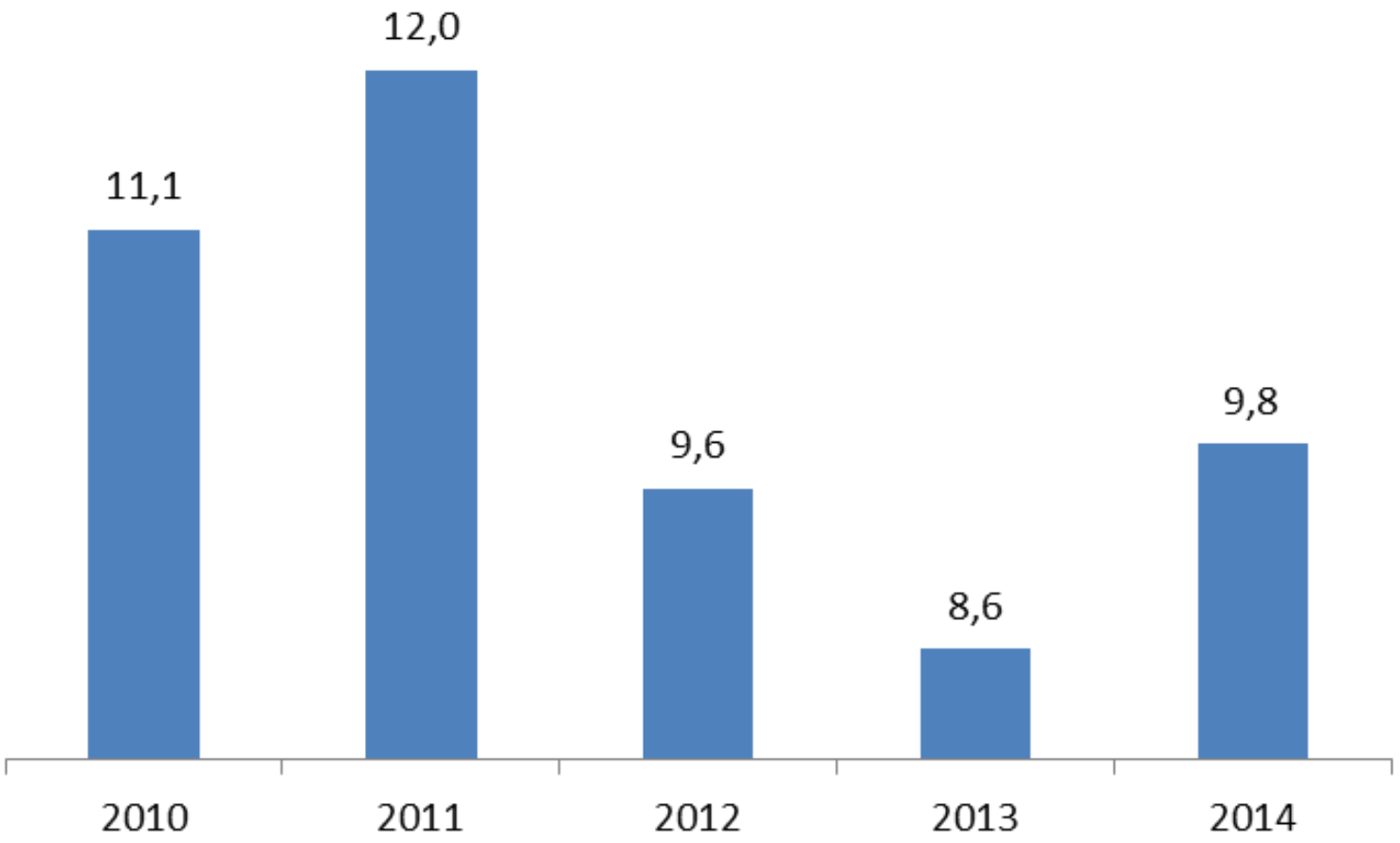
4 rondzendingen per jaar



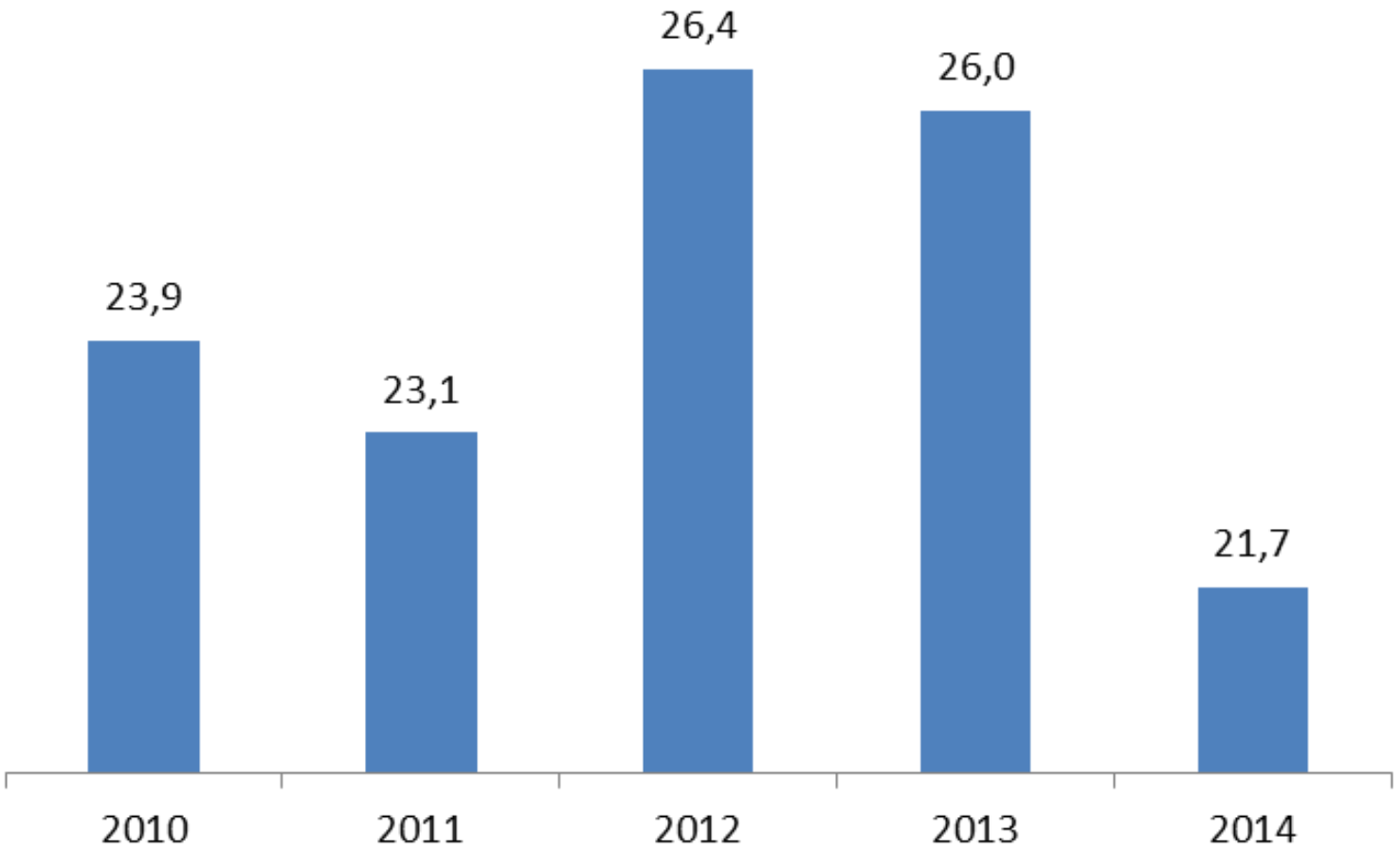
* 3 blastocyst rondzendingen
** 1 blastocyst rondzending

VU medisch centrum

Gem. VC% cel aantal

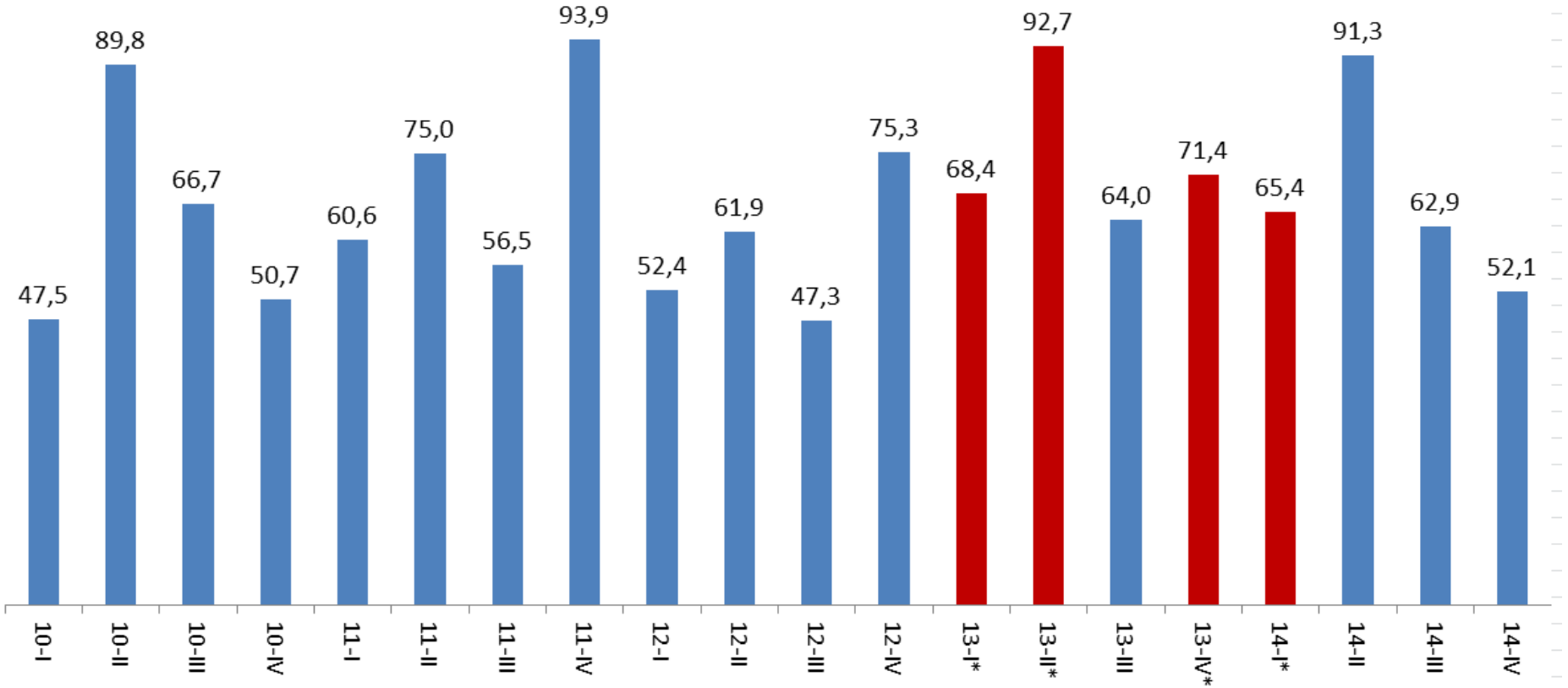


Gem. VC% gradatie



% overeenstemming ET embryo/blastocyst

(bijvoorbeeld 10-I: 47,5% koos hetzelfde embryo voor ET)



VU medisch centrum

Voordelen

- Persoonlijke statistiek
- Afwijkende resultaten makkelijk te identificeren

Nadelen

- Kwaliteit videofragmenten
- Embryo's/blastocyst kwaliteit heeft invloed op statistiek, (bij gradatie 1 > cv % bijna 0)
- Lab met 1-2 deeln. kunnen niet genieten van intralab statistiek
- Score methode is niet universeel

embryo grading

grade	
1	blastomeres of equal size, no fragmentation
2	blastomeres of unequal size, <10% cytoplasmic fragments or granular blastomeres
3	blastomeres of unequal size, 10-50% cytoplasmic fragments and granular blastomeres
4	blastomeres of unequal size, >50% cytoplasmic fragments and granular blastomeres

blastocyst grading

Blastocyst development stage

grade	development status
B1	Blastocoel cavity less than half the volume of the embryo
B2	Blastocoel cavity more than half the volume of the embryo
B3	Full blastocyst, cavity completely filling the embryo
B4	Expanded blastocyst, cavity larger than the embryo, with thinning of the shell
B5	Hatching out of the shell
B6	Hatched out the shell

Inner cell mass (ICM)

grade	ICM quality
1	Many cells, tightly packed
2	Several cells, loosely grouped
3	Very few cells

Trophectoderm (TE)

grade	TE quality
1	Many cells, forming a cohesive layer
2	Few cells, forming a loose epithelium
3	Very few large cells

The Istanbul consensus workshop on embryo assessment: proceedings of an expert meeting†

2011

Alpha Scientists in Reproductive Medicine and ESHRE Special Interest Group of Embryology

Table VI Consensus scoring system for cleavage-stage embryos (in addition to cell number).

Grade	Rating	Description
1	Good	• <10% fragmentation • Stage-specific cell size • No multinucleation
2	Fair	• 10–25% fragmentation • Stage-specific cell size for majority of cells • No evidence of multinucleation
3	Poor	• Severe fragmentation (>25%) • Cell size not stage specific • Evidence of multinucleation

Human Reproduction, Vol.26, No.6 pp. 1270–1283, 2011

Advanced Access publication on April 18, 2011 doi:10.1093/humrep/der037

Table VIII Consensus scoring system for blastocysts.

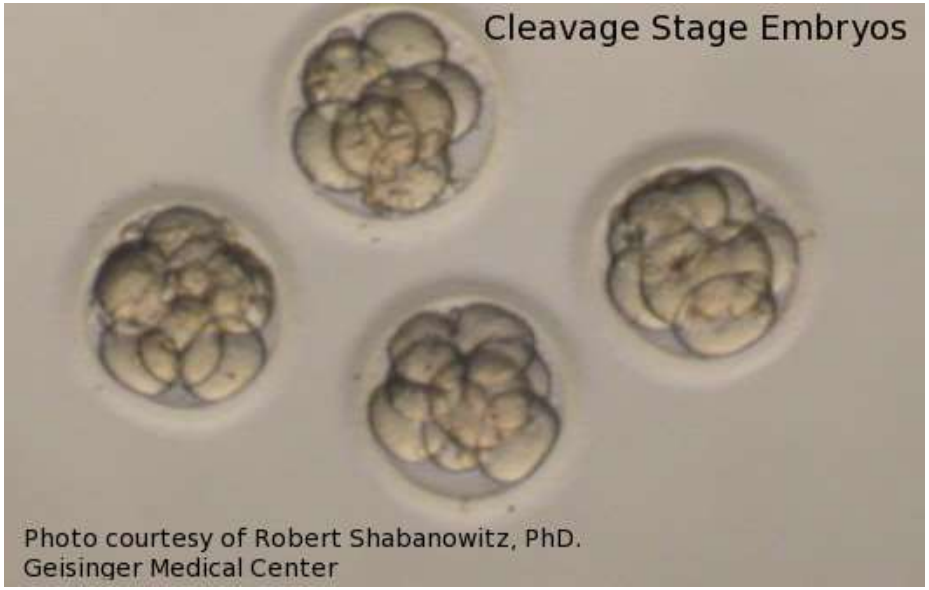
	Grade	Rating	Description
Stage of development	1		Early
	2		Blastocyst
	3		Expanded
	4		Hatched/hatching
ICM	1	Good	Prominent, easily discernible, with many cells that are compacted and tightly adhered together
	2	Fair	Easily discernible, with many cells that are loosely grouped together
	3	Poor	Difficult to discern, with few cells
TE	1	Good	Many cells forming a cohesive epithelium
	2	Fair	Few cells forming a loose epithelium
	3	Poor	Very few cells

The scoring system for blastocysts is a combination of the stage of development, and of the grade of the ICM and of the TE (e.g. an expanded blastocyst with a good ICM and a fair TE would be scored as 3 1 2). It is a numerical interpretation of the Gardner scale (Gardner and Schoolcraft, 1999a,b).

En nu zelf aan het werk.

De “discussie embryo’s”…….

http://squax.nl/embryo-online/



VU medisch centrum

CONCLUSIE

1. **Klassikaal**

2. **Variatiecoëfficiënt**

3. **Door uniforme beoordelingen →**
   Betere selectie mogelijk
   Betere kwaliteitsborging mogelijk
   Beter onderzoek mogelijk