
The Committee for the evaluation of Dr. Matteo Dell’Acqua, tenure-track – probationary, assistant professor, in the third year of his temporary contract pursuant to Italian Law no. 240/2010, art. 24 paragraph 3 letter B, in order to promote him to Associate Professor in the Academic Recruitment Field 07/E1 “Agricultural chemistry, genetics and pedology” – Academic Discipline AGR/07 “Agricultural genetics” at the Institute of Life Science, nominated by the Rector by decree No. 524 dated 06/08/2021, consists of:

- Alison Bentley - Global Wheat Program -International Maize and Wheat Improvement Center,
- Domenico Carputo, Professor of the Academic Recruitment Field 07/E1 “Agricultural chemistry, genetics and pedology” at the University of Napoli Federico II,
- Lino Cinquini, Professor of the Academic Recruitment Field 13/B1 “Business Administration and Accounting” at the Scuola Superiore Sant’Anna (School), member of the Recruitment Committee,
- Tzion Fahima, Professor at the University of Haifa, head of the Laboratory of Plant Genomics and Immunity,
- Lucia Natali, Professor of the Academic Recruitment Field 07/E1 “Agricultural chemistry, genetics and pedology” at the University of Pisa,
- Roberto Tuberosa, Professor of the Academic Recruitment Field 07/E1 “Agricultural chemistry, genetics and pedology” at the University of Bologna, designated expert by the Institute of Life Sciences.

The Committee convened via teleconference on Webex (Meeting # 188 106 6867), on September, 29th, at 17:00 (CET time), from the following locations:

Prof. Bentley located in Texcoco-Mexico, connected via Webex (e-mail: a.bentley@cgiar.org).
Prof. Carputo located in Napoli-Italy, connected via Webex (e-mail: carputo@unina.it).
Prof. Cinquini located in Massarosa-Italy, connected via Webex (e-mail: l.cinquini@santannapisa.it).
Prof. Fahima located in Haifa-Israel, connected via Webex (e-mail: fahima@research.haifa.ac.il).
Prof. Natali located in Pisa-Italy, connected via Webex (e-mail: lucia.natali@unipi.it).

Prof. Tuberosa located in Bologna-Italy, connected via Webex (e-mail: roberto.tuberosa@unibo.it).

The draft of the minutes that follows, was agreed on and approved by the members of the Committee.

Pursuant to art. 5 paragraph 2 of Legislative Decree no. 1172/1948, each member declared that they have no kinship or affinity up to the fourth grade with any of the other members and the candidate, that there are no reasons for abstention in relation to art. 51 of c.p.c. and that he is not in any situation, actual or potential, of conflict of interests with the candidates (as per art. 6 bis of the Legislative Decree No 241/1990).

Prof. Roberto Tuberosa was nominated as President and Prof. Lino Cinquini as Secretary.

The Committee then reviewed the Call and especially his article 4 and agreed that the candidate shall be assessed according to the parameters established by Ministerial Decree 344/2011, in relation to the compliance of the scientific profile with the “general criteria of qualification for teaching and research required for access to professorial positions at the School” established by the School’s Commission for Recruitment and set out in article 1 of the Call.

The Committee then carried a motion that the Committee’s work should terminate by October, 9th, 2021 (two months from the date of the nomination decree).

The members of the Committee stated that the Personnel Office of the School has provided them with an electronic copy of the documentation submitted by the candidate containing: application, curriculum, publications with a declaration in lieu of an affidavit certifying compliance with the original, and a list of all the documents accompanying the application and that they have examined it and made their individual assessments, which are reported in Annex 1 of these minutes.

The Committee then collectively examined the publications, curriculum and teaching activities of the candidate, confronted their individual assessments and reviewed the collegiate assessment annex sub 2 attached to the minutes of which it is an integral part.

Then after a full discussion, the Committee declared unanimously that Dr. Matteo Dell’Acqua is qualified to be appointed as Associate Professor.

Prof. Cinquini (Member of the Recruitment Committee) testified that the evaluation of the candidate, the presentation of the individual assessments, the ensuing discussion and, in general,
the whole procedure occurred in full compliance with the rules established by Scuola Sant'Anna and its Recruitment Committee.

Given the conclusion of the selection procedure for one position of Associate Professor, at the Institute of Life Sciences in the Academic Class of Experimental and Applied Sciences, for the Academic Recruitment 07/E1 “Agricultural chemistry, genetics and pedology” - Academic Discipline AGR/07 “Agricultural genetics” pursuant to art. 24, subsection 5 of Italian law 240/2010, the President declared the work closed.
These minutes, drawn up and signed by the President and the attached declarations of the Committee's members will be sent the Personnel Office in order for these proceedings to be verified, with a decree by the Rector.

The session closed at 18:00.

Read, approved and signed,

The President
Prof. Roberto Tuberosa

[Signature]
ANNEX 1 – INDIVIDUAL ASSESSMENTS

Prof. Alison Bentley

My assessment of the candidate Dr Matteo Dell’Acqua is provided below in terms of research activities, teaching activities, participation in research projects and publishing (and associated scientific activities) along with an overall recommendation.

Research activities: the candidate has a strong publication record for career stage, with good evidence in building as a senior author (1 senior author publication to date in 2021 with 4 additional in review, 2 in 2020, 1 in 2019). They have a current h-index of 11, with 21 publications. The publications are of high quality and demonstrate a depth of expertise and analysis applied to relevant research topics. Overall, the candidate demonstrates a solid portfolio of relevant and novel research spanning evolutionary and genomics approaches applied to crop science and plant breeding. This is highly topical and has generated a range of interesting collaborations which will no doubt form the basis of further research (and funding, publications) in future.

Teaching activities: although I am not familiar with the specific system, the teaching contributions listed by the candidate appear to be in line with expectation based on career stage. The candidate demonstrates not only formal teaching contributions (149 hours of graduate/undergraduate teaching in agrobiodiversity, R for data analysis and genomics) but also a significant contribution to mentoring activities in crop genetics and bioinformatics (evidenced via supervision of 4 PhD and 3 MSc students and tutoring of 8 further PhD students and regular hosting of visiting international students).

Participation in research projects: the candidate has secured funding for participation in two recent H2020 projects and is involved in these as a WP or case study leader. This demonstrates a strong presence in the scientific community and a good ability to build projects and partnerships to successfully secure research funding. They have also been involved as a team member in several other grants, as well as an advisor on international projects, demonstrating their ability to contribute relevant expertise and participation to larger research consortia.

Publishing & other scientific activities: as above, the candidate has a strong (and growing) publication record. In addition, they have made numerous academic presentations, along with 5 invited presentations and elected advisory board roles. They have also participated on evaluation committees and made a significant contribution to many institutional and scientific community activities as well as to a diverse range of scientific outreach and dissemination events. Overall, I believe the candidate meets the criteria for promotion based on the four criteria and has excellent potential as an academic leader in agriculture.
The candidate Matteo Dell’Acqua is currently Assistant Professor with a fixed-term employment contract (law 240/2010 lett. b) for the scientific sector AGR/07 at the Institute of Life Sciences, Scuola Superiore Sant’Anna, Pisa. The candidate presents an excellent curriculum, which shows an articulated and interdisciplinary activity. It also highlights numerous collaborations, positions of responsibility in international research projects, and institutional activities carried out in different areas: the board of two PhD programs, examination and recruitment commissions, promotion and orientation programs.

In terms of teaching activities, Prof. Dell’Acqua shows a consistent and continuous teaching experience having carried out courses and lectures for both graduate and undergraduate students. The teaching activity has been centered on typical areas of the scientific sector AGR/07 (from statistics applied to agribiosciences to genomics). Many of these courses were taught in English. He is also promoter and coordinator of the Seasonal School "Climate resilient, biodiversity-based agriculture for sustainable development (AgriDev)" that will be held in May 2022. In his teaching experience, Prof. Dell’Acqua has also acted as either tutor or supervisor of numerous PhD theses. The commitment in participating in examination and competition commissions and in the provision of seminars at prestigious national and international universities was also consistent.

The candidate's scientific production reported in the curriculum highlights a very rigorous, continuous and original approach to research. Prof. Dell’Acqua reports the publication of 12 scientific articles in international journals before the tenure track (earlier than 2019) and of 16 scientific articles in international journals in the contract period. At a bibliometric level, he presents an H-index of 13 and 448 citations (from Scopus). The value of these indicators is very good and has allowed Prof. Dell’Acqua to obtain the national scientific qualification as Associate Professor for both the AGR/07 and the SSD BIO/11 scientific sectors. I believe this is quite an accomplishment. As requested from the call, Prof. Dell’Acqua offers for this evaluation 12 selected scientific publications. They mainly deal with topics related to the development of genomic tools for breeding important crops such as maize and wheat and highlight an interdisciplinary approach to research. They are consistent with the scientific sector AGR/07 and are all well indexed. In addition, they have been produced in co-authorship with foreign scientists, outlying Prof. Dell’Acqua aptitude to international scientific collaborations. The individual contribution of Prof. Dell’Acqua in the 12 publications presented for this evaluation is outstanding and is also evident on the basis of the position of the name on the list of authors (in 9 publications he is last author and in 1 he is first author). The average quality of the 12 publications is excellent for originality, methodological rigor and editorial positioning. The impact on the scientific sector AGR/07 is also excellent.

The candidate's scientific research activity was supported by funding from national and international public/private institutions. Indeed, he has participated in numerous research projects and, above all, has had the scientific responsibility of three research projects, two of which are within the H2020 program. Over the years, thanks also to the numerous projects in which he has been involved in, he has developed numerous and fruitful collaborations with international scientific institutions including, among the others, Volcani Agricultural Center (Israel), Wageningen University (NL), Cambridge University (UK), World Meteorological Organization (CH), the Barcelona Supercomputing Center (SP), the African Center of Meteorological Applications for Development (SA). The research activity has always been accompanied by participation in national and international conferences in which the results of the researches have been presented in the form of.
oral contributions and posters. Worthy of note in this context are the awards received as best oral presentation and best publication.

In sum, considering the academic and professional qualifications presented, the scientific publications produced and the scientific research activity conducted, I strongly believe Prof. Dell'Acqua has a first-rate personality and all the characteristics necessary to continue a prolificous academic activity. Therefore, I strongly recommend his recruitment as Associate Professor in the academic recruitment field 07/E1 (Agricultural chemistry, genetics and pedology) - scientific sector AGR/07 (Agricultural genetics), at the Institute of Life Sciences, Scuola Superiore Sant'Anna.

Prof. Lucia Natali

Dr. Matteo Dell'Acqua is a full time researcher at Sant'Anna School of Pisa, scientific sector AGR/07 Agricultural Genetics. His application dossier provides detailed statements and records of teaching and research, his professional network and community and shows his professional competence.

He earned his Ph.D. in Agrobiodiversity at the Sant'Anna School of Pisa in June 2014, then he devoted a lot of efforts achieving relevant results in terms of scientific publications, research, and teaching.

In term of publications, he has published 26 articles, with 448 citations and h-index = 13 (according to Scopus database). He reached high international standards in its research field because many of his articles are published in indexed and highly-rated scientific journals as for example, Proceedings of Natl. Acad. USA (2019), Genome Biology (2015), Plant Biotechnology Journal (2016, 2019), Communications Biology (2021), The Plant Journal (2018, 2021), Heredity (2021), Scientific Reports (2017, 2019).

The overall impression of Matteo Dell'Acqua’s research is extremely positive, because he is able to give strong theoretical and empirical contribution to the field of plant quantitative genetics and sustainable agriculture. His research interests range from forward genetics to accelerate crop improvement, to the development and the analysis of multiparental crop populations, to the use of data driven participatory breeding methods, using multiple theoretical and experimental approaches. His publications show that he has a strong research attitude and ability. During his period as assistant professor at the Sant’Anna School, he has published 16 articles in Q1 journals, being last and corresponding author in 7 papers. They contain new and scientific findings that are interesting and relevant for scientists, scholars, and breeders in Europe and elsewhere.

He is active in several scientific networks by participating several international projects. In the period 2018-2021 he has shown a conspicuous activity of funding attraction, leading or collaborating in projects such as CAPITALISE, FOCUS-Africa (both in Horizon2020), HAZEL, PRIMA LEGU-MED, and others.

Considering teaching activity, during his period as assistant professor at Sant’Anna School, Dr. Matteo Dell'Acqua has taught in several courses at undergraduate and graduate levels, as "R for data analysis in Agrobiodiversity", "Introduction to statistical analysis for agrobiosciences, basic and intermediate", "Genetic analysis of complex traits", "Advanced Genomics", and "Tropical agriculture". He acted as supervisor and co-supervisor of three master students. He is supervisor or tutor of many PhD students in the doctoral programme in Agrobiodiversity at Sant’Anna School.
The activities devoted to dissemination and public engagement are similarly considerable, either via seminars, internet, radio and television, mostly related to climate change and participatory research approaches.

In conclusion, Dr. Matteo Dell’Acqua is a nationally and internationally recognised outstanding young scientist with a strong research, teaching, fund raising and dissemination experience. He is also excellent in activating fruitful relations with other scientists from different universities and countries and collaborating widely with surrounding communities. Summing up, I strongly support his application for his recruitment as Associate Professor.

Prof. Tzion Fahima

I am the Head of the Laboratory of Plant Genomics and Immunity, and the former Director of the Institute of Evolution (2013-2019) at the University of Haifa, Israel, and I am happy to provide a letter of evaluation of the scientific and scholar accomplishments of Dr. Matteo Dell'Acqua. I have met Dr. Dell'Acqua several times in international conferences during the last five years and I was impressed by his scientific development and performance.

(i) **Research Activity skills** and scientific production in the international context: Dr. Dell'Acqua’s main research activities are focused on the development of genomic-based breeding methods and tools for exploitation of crop genetic resources, the analysis of multi-parental crop populations, the increase of the genetic gain in challenging farming systems, and the maximization of varietal uptake to improve food security in target environments. These research activities were conducted in collaboration with international community of scientists and farmers. In his research activities Dr. Dell'Acqua is addressing highly challenging food security and climate change problems by taking a multidisciplinary approach that combines advanced tools in genomics, bioinformatics, agronomy, climate science and socioeconomics. The high productivity of Dr. Dell'Acqua, as evident from his publication records, is showing that he is an excellent crop geneticist working with a wide spectrum of cereal crops such as durum wheat, maize, barley, and wheat wild relatives.

(ii) **Teaching Activity skills**, in post-graduate courses, particularly in PhD programs: During the time as assistant professor (2018-2021), Dr. Dell'Acqua was involved in teaching of more than five different courses in Genomics, statistics, and genetics, mostly within the Doctoral Program in Agrobiodiversity and the Doctoral Program in Agrobiosciences for a total of 149 hours and he also served as a board member for both PhD programs. Therefore, Dr. Dell'Acqua exceeded by far the required teaching duties of an Assistant Professor at Scuola Superiore Sant'Anna, which is 30 hrs per academic year. Furthermore, Dr. Dell'Acqua served as a supervisor of 4 PhD students and as a tutor of 8 PhD Students in the PhD Program in Agrobiodiversity, and also supervised three MSc students. These achievements show that Dr. Dell'Acqua is very productive and highly devoted to his teaching duties while mentoring the future generation of young scientists.

(iii) **Participation in research projects:** During the last three years, Dr. Dell'Acqua was awarded seven national and international grants. He is serving as scientific coordinator at SSSA for two Horizon 2020 projects amounting to a total of €730,000, and he took part in five other projects as a team member. He presented the results obtained in these projects in oral presentations in 12 national and international conferences and
seminars and was invited as a speaker in five international events. I find these achievements as outstanding for a young researcher reflecting the visibility and recognition he earned among the global scientific community.

(iv) **Publishing activity:**
Dr. Dell’Acqua devoted his life to explore and discover cereal genomes that are highly complex due to their huge size, much larger than the human genome, with more than 80% repetitive sequences. Nevertheless, Dr. Dell’Acqua continuously delivered high quality scientific output published in high-ranking international plant science journals. In total, he published 26 articles in internationally recognized scientific journals, 16 of them in the last three years, after he was appointed as an Assistant Professor. These articles received international recognition and appreciation as indicated by 448 citations in respected international journals. The highly productive publication records of Dr. Dell’Acqua clearly show that he is an excellent young scientist with bright future ahead of him.
In summary, based on his brilliant academic record, his outstanding scientific achievements, and his contribution to crop breeding and global food security, I strongly support Dr. Dell’Acqua promotion to Associate Professor in the Academic Recruitment Field 07/E1 “Agricultural chemistry, genetics and pedology” at the Institute of Life Sciences, Scuola Superiore Sant'Anna, Pisa, Italy.

**Prof. Roberto Tuberosa**

Herewith, I enclose my evaluation on the research and teaching activities carried out by Dr. Matteo Dell’Acqua, a full time researcher at the Sant'Anna School of Pisa, scientific sector AGR/07/E1 Agricultural Genetics. I have met Dr. Dell’Acqua in several occasions at national and international conferences during the last eight years and I have always been impressed very positively by his level of knowledge and capacity to critically analyse and constructively discuss a wide variety of topics in the area of crop genomics and plant breeding.

The application and the documents presented by Dr. Dell’Acqua provide a clear and positive view of the professional competence he acquired since joining the Sant'Anna School of Pisa, as shown by his scientific development and performance as documented by his records detailed statements and records on his research activities, teaching and his professional network and community.

**Scientific activities.** After earning a Ph.D. in Agrobiodiversity at the Sant’Anna School of Pisa in June 2014, Dr. Dell’Acqua was engaged and completed research projects in cereal genomics which allowed for the publication of a remarkable number of high-quality manuscripts in highly-rated scientific journals. Dr. Dell’Acqua’s main research activities focused on genomic-based breeding methods and genetic resources to identify beneficial alleles for plant breeding applications. Overarching goals of his activity were how to increase genetic gain in challenging and low-input farming systems while facilitating through a participatory approach the varietal uptake by smallholder farmers to improve food security. To date, he has published 26 articles, with 448 citations and h-index = 13 (according to Scopus database). Particularly noteworthy are the articles published in Genome Biology (2015), Plant Biotechnology Journal (2016, 2019), Scientific Reports (2017, 2019), The Plant Journal (2018, 2021), Proceedings of Natl. Acad. USA (2019), Communications Biology (2021) and Heredity (2021). In addition, he has made numerous academic presentations at national and international events, including five invited presentations.
**Teaching activity.** The teaching activity (2018-present) of Dr. Dell'Acqua spanned five different courses in Genetics, Genomics, and Statistics mostly within the Ph.D. Program in Agrobiodiversity and the Ph.D. Program in Agrobiosciences at the Sant’Anna School. In total, he taught 149 hours while serving also as a board member for both PhD programs. These teaching activities far exceeded the required teaching duties requested to an Assistant Professor at Scuola Superiore Sant'Anna. Additionally, Dr. Dell'Acqua supervised four PhD students and three MSc students. He also tutored eight students in the Ph.D. Program in Agrobiodiversity. These activities indicate that Dr. Dell’Acqua is a very dedicated teacher and mentor, two essential prerequisites to effectively train new generations of scientists.

**Participation in research projects.** The candidate has secured funding to participate to two recent H2020 projects where he is involved as a WP or case-study leader. This demonstrates a strong engagement in the scientific community and the ability to build competitive state-of-the-art networks and partnerships to submit competitive proposals and successfully secure research funding. Dr. Dell’Acqua has also been involved as a team member in other national projects and as an advisor in international projects, demonstrating his capacity to contribute critical expertise and ability to participate to larger research consortia. The activities devoted to dissemination and public engagement are similarly considerable, either via seminars, internet, radio and television, mostly related to climate change and participatory research approaches.

In summary, Dr. Matteo Dell’Acqua is an outstanding and talented young scientist with a strong and nationally and internationally recognised record in research, teaching, fund raising and networking experience. I am confident that he will contribute significantly to advance the knowledge in cereal genomics and its applications to crop breeding in a multidisciplinary context while enhancing the competitiveness of the Sant’Anna School. Based on the above, I strongly support Dr. Matteo Dell’Acqua application for the promotion to Associate Professor at the Sant’Anna School.
ANNEX 2 - COLLEGIATE ASSESSMENT

The Commission examined the documents submitted by Dr. Matteo Dell’Acqua and produced the following collegiate assessment, in accordance with the parameters established by ministerial Decree 344/2011 and indicated in article 4 of the Call.

Research activity and publications. Overall, Matteo Dell’Acqua’s research and publications underline a strong theoretical and empirical contribution to the field of plant quantitative genetics and sustainable agriculture with an appreciation of socio-economic aspects related to conventional and participatory breeding. His research interests range from forward genetics to accelerate crop improvement, to the development and the analysis of multiparental crop populations, to the use of data-driven participatory breeding methods using multiple theoretical and experimental approaches. His publications show that he has a strong research attitude and ability. During his period at the Sant’Anna School, he published 16 articles in Q1 journals as last and corresponding author in 7 papers. They contain new and scientific findings that are interesting and relevant for scientists, scholars and breeders in Europe and elsewhere. In addition to the 26 articles published in numerous prestigious journals (Genome Biology, Plant Biotechnology Journal, Scientific Reports, The Plant Journal, Proceedings of Natl. Acad. USA, Communications Biology and Heredity) with 448 citations and h-index = 13 (Scopus Database), he has made numerous academic presentations at national and international events, including five invited presentations.

Teaching activity. The teaching activity (2018-present) of Dr. Dell’Acqua has spanned five different courses in Genetics, Genomics, and Statistics mostly within the Ph.D. Program in Agrobiodiversity and the Ph.D. Program in Agrobiosciences at the Sant’Anna School. In total, he taught 149 hours while also serving as a board member for both Ph.D. programs. These demanding teaching activities far exceeded the required teaching duties requested for an Assistant Professor at Scuola Superiore Sant'Anna, Additionally, Dr. Dell’Acqua supervised four Ph.D. students and three M.Sc. students. He also tutored eight students in the Ph.D. Program in Agrobiodiversity. These activities indicate that Dr. Dell’Acqua is a very dedicated teacher and mentor, two essential prerequisites to effectively train new generations of plant scientists.

Participation in research projects. During the last three years, Dr. Dell'Acqua was awarded seven national and international grants. He is serving as scientific coordinator in two Horizon 2020 projects amounting to a total of € 730,000 and he took part in five other projects as a team member. This demonstrates a strong engagement in the scientific community and the ability to build competitive state-of-the-art networks and partnerships to submit competitive proposals and successfully secure research funding. Dr. Dell’Acqua has also been involved as a team member in other national projects and as an advisor in international projects, demonstrating his capacity to contribute critical expertise and ability to participate in larger research consortia. The activities in the third mission devoted to dissemination and public engagement are similarly noteworthy, either through seminars, internet, radio and television, mostly related to climate change and participatory research approaches.

The candidate Matteo Dell’Acqua is currently Assistant Professor with a fixed-term employment contract in the scientific sector AGR/07 (Agricultural Genetics) at the Institute of Life Sciences, Scuola Superiore Sant’Anna in Pisa. All members of the commissions unanimously judged as extremely positive the research and teaching activities carried out by the candidate at the Sant’Anna
School of Pisa while underlining his remarkable capacity to critically and constructively manage advanced studies in cereal genomics as related to the characterization of germplasm and the application of this knowledge to breeding activities.

In summary, Dr. Matteo Dell’Acqua is an outstanding and talented young scientist with a strong nationally and internationally recognized record in research, teaching, fund raising and networking experience. The Commission is fully confident that he will significantly contribute to advance knowledge in cereal genomics while leveraging its applications to crop breeding in a multidisciplinary context and enhancing the competitiveness of the Sant’Anna School.

Based on the above, the Commission strongly supports Dr. Matteo Dell’Acqua’s application for the promotion to Associate Professor at the Sant’Anna School.