Employment History

(a) **Teaching** and RESEARCH (Post- PhD)

Name of Organization	Designation	Scale	Job Profile	Duration Time		
				Dates		Period
				From	To	YY-MM-DD
Neurology, George August University, Medical Center, Gottingen, Germany	**Research Scientist and Principle investigator**	TVL-13 Stuff 4	• Research Direct supervision of. Ph.D, MS, MBBS students • Teaching (Mol. Medicine programme)	2011	Till date 2018	07-00-10

Total Experience (Teaching & Research)	**Years**	**Months**	**Days**
	7	**0**	**1**

Research Publications

(a) National/ International Journal Papers

Sr. #	Title of Publication	author(s)	Complete Name of Journal and Address	Vol. No.	Page No.	Year	HEC approved (Yes/ No)	Impact Factor
1.	Cellular prion protein mediates early apoptotic proteome alternation and phospho-modification in human neuroblastoma cells.	**Zafar S,** Behrens C, Dihazi H, Schmitz M, Zerr I, Schulz-Schaeffer WJ, Ramljak S, Asif AR.	**Nature;** Cell Death & Disease	8	e2557	2017	Yes	**5.965**
2.	Cytoskeleton-Associated Risk Modifiers Involved in Early and Rapid Progression of Sporadic Creutzfeldt-Jakob Disease. Mol Neurobiol.	**Zafar S,** Younas N, Sheikh N, Tahir W, Shafiq M, Schmitz M, Ferrer I, Andréoletti O, Zerr I.	Molecular Neurobiology	[Epub ahead of print]	-	2017	Yes	**6.190**
3.	Evaluation of α-synuclein as a novel cerebrospinal fluid biomarker in different forms of prion diseases.	Llorens F, Kruse N, Schmitz M, Gotzmann N, Golanska E, Thüne K, Zejneli O, Kanata E, Knipper T, Cramm M, Lange P, **Zafar S**, Sikorska B, Liberski PP, Mitrova E, Varges D, Schmidt C, Sklaviadis T, Mollenhauer B, Zerr I.	**Alzheimer's & Dementia**	13	710-719	2017	Yes	**13.294**
4.	Prion Protein Interactome: Identifying Novel Targets in Slowly and Rapidly Progressive Forms of Alzheimer's Disease.	**Zafar S,** Shafiq M, Younas N, Schmitz M, Ferrer I, Zerr I.	Journal of Alzheimer's Disease	59	265-275	2017	Yes	3.920
5.	Applications of the Real-Time Quaking-Induced Conversion assay in diagnosis, prion strain-typing, drug pre-screening and other amyloidopathies..	Candelise N, Schmitz M, da Silva Correia SM, Arora A, Villar-Piqué A, **Zafar S,** Llorens F, Cramm M, Zerr I.	Expert Review of Molecular Diagnostics	[Epub ahead of print]	-	2017	Yes	3.1

6.	Altered Ca(2+) homeostasis induces Calpain-Cathepsin axis activation in sporadic Creutzfeldt-Jakob disease.	Llorens F, Thüne K, Sikorska B, Schmitz M, Tahir W, Fernández-Borges N, Cramm M, Gotzmann N, Carmona M, Streichenberger N, Michel U, **Zafar S**, Schuetz AL, Rajput A, Andréoletti O, Bonn S, Fischer A, Liberski PP, Torres JM, Ferrer I, Zerr I.	Acta Neuropathologica Communications	5	35	2017	yes	-
7.	Strain-Specific Altered Regulatory Response of Rab7a and Tau in Creutzfeldt-Jakob Disease and Alzheimer's Disease.	**Zafar S**, Younas N, Correia S, Shafiq M, Tahir W, Schmitz M, Ferrer I, Andréoletti O, Zerr I.	**Molecular Neurobiology**	54	697-709	2017	Yes	**6.190**
8.	Effect of Metformin on Adult Hippocampal Neurogenesis: Comparison with Donepezil and Links to Cognition	Ahmed S, Mahmood Z, Javed A, Hashmi SN, Zerr I, **Zafar S**, Zahid S.	Journal of Molecular Neuroscience	62	88-98	2017	yes	2.229
9.	Dementia with Lewy Bodies: Molecular Pathology in the Frontal Cortex in Typical and Rapidly Progressive Forms.	Garcia-Esparcia P, López-González I, Grau-Rivera O, García-Garrido MF, Konetti A, Llorens F, **Zafar S**, Carmona M, Del Rio JA, Zerr I, Gelpi E, Ferrer I.	Frontiers in Neurology	8	-	2017	Yes	3.552
10.	Validation of α-Synuclein as a CSF Biomarker for Sporadic Creutzfeldt-Jakob Disease	Llorens F, Kruse N, Karch A, Schmitz M, **Zafar S**, Gotzmann N, Sun T, Köchy S, Knipper T, Cramm M, Golanska E, Sikorska B, Liberski PP, Sánchez-Valle R, Fischer A, Mollenhauer B, Zerr I.	**Molecular Neurobiology**	[Epub ahead of print]	-	2017	Yes	**6.190**
11.	Biosorption behavior and proteomic analysis of Escherichia coli P4 under cadmium stress	Khan Z, Rehman A, Nisar MA, **Zafar S**, Zerr I.	Chemosphere	174	136-147	2017	Yes	2.74

12.	Molecular Alterations in the Cerebellum of Sporadic Creutzfeldt-Jakob Disease Subtypes with DJ-1 as a Key Regulator of Oxidative Stress.	Tahir W, **Zafar S**, Llorens F, Arora AS, Thüne K, Schmitz M, Gotzmann N, Kruse N, Mollenhauer B, Torres JM, Andréoletti O, Ferrer I, Zerr I.	**Molecular Neurobiology**	[Epub ahead of print]	-	2016	Yes	**6.190**
13.	Stratification by Genetic and Demographic Characteristics Improves Diagnostic Accuracy of Cerebrospinal Fluid Biomarkers in Rapidly Progressive Dementia.	Karch A, Llorens F, Schmitz M, Arora AS, **Zafar S**, Lange P, Schmidt C, Zerr I.	Journal of Alzheimer's Disease	54	1385 - 1393	2016	Yes	3.731
14.	The real-time quaking-induced conversion assay for detection of human prion disease and study of other protein misfolding diseases.	Schmitz M, Cramm M, Llorens F, Müller-Cramm D, Collins S, Atarashi R, Satoh K, Orrù CD, Groveman BR, **Zafar S**, Schulz-Schaeffer WJ, Caughey B, Zerr I.	**Nature Protocol**	11	2233 - 2242	2016	YES	**13.254**
15.	Regulation of human cerebrospinal fluid malate dehydrogenase 1 in sporadic Creutzfeldt-Jakob disease patients.	Schmitz M, Llorens F, Pracht A, Thom T, Correia Â, **Zafar S**, Ferrer I, Zerr I.	Aging	8	2927 - 2935	2016	Yes	4.867
16.	Application of an in vitro-amplification assay as a novel pre-screening test for compounds inhibiting the aggregation of prion protein scrapie	Schmitz M, Cramm M, Llorens F, Candelise N, Müller-Cramm D, Varges D, Schulz-Schaeffer WJ, **Zafar S**, Zerr I.	Scientific Reports	6	-	2016	Yes	4.259
17.	Novel Biomarkers and the diagnosis of Prion diseases	**Zafar S,** Younas N, Zerr I.	Journal of Molecular Biomarkers & Diagnosis	7	011	2016	Yes	1.20
18.	Application of capillary immunoelectrophoresis revealed an age- and gender-dependent regulated expression of PrPC in liver.	Arora AS, **Zafar S**, Kollmar O, Llorens F, Tahir W, Vanselow S, Kumar P, Schmerr MJ, Schmitz M, Zerr I.	Electrophoresis.	36	3026 -33	2015	Yes	2.744

19.	Cytokine profiles and the role of cellular prion protein in patients with vascular dementia and vascular encephalopathy.	Schmitz M, Hermann P, Oikonomou P, Stoeck K, Ebert E, Poliakova T, Schmidt C, Llorens F, **Zafar S**, Zerr I.	Neurobiology of Aging	36	2597-606	2015	Yes	**5.26**
20.	Quantification of CSF biomarkers using an electrochemiluminescence-based detection system in the differential diagnosis of AD and sCJD.	Llorens F, Kruse N, Schmitz M, Shafiq M, da Cunha JE, Gotzman N, **Zafar S**, Thune K, de Oliveira JR, Mollenhauer B, Zerr I.	Journal of Neurology	262	2305-11	2015	Yes	3.389
21.	Cellular prion protein directly interacts with and enhances lactate dehydrogenase expression under hypoxic conditions.	Ramljak S, Schmitz M, **Zafar S**, Wrede A, Schenkel S, Asif AR, Carimalo J, Doeppner TR, Schulz-Schaeffer WJ, Weise J, Zerr	Experimental Neurology	271	155-67	2015	Yes	4.44
22.	Creutzfeldt-Jakob Disease Subtype-Specific Regional and Temporal Regulation of ADP Ribosylation Factor-1-Dependent Rho/MLC Pathway at Pre-Clinical Stage.	**Zafar S**, Schmitz M, Younus N, Tahir W, Shafiq M, Llorens F, Ferrer I, Andéoletti O, Zerr I	Journal of Molecular Neuroscience	56	329-48	2015	Yes	2.31
23.	Alpha-Synuclein: A potential Cerebrospinal fluid biomarker for differentiation of CJD from AD	Shafiq M, Llorens F, **Zafar S,** Zerr I	Prion	9	S11–S99	2015	Yes	2.04
24.	Cerebrospinal fluid tau levels are a marker for molecular subtype in sporadic Creutzfeldt-Jakob disease.	Karch A, Hermann P, Ponto C, Schmitz M, Arora A, **Zafar S**, Llorens F, Müller-Heine A, Zerr I.	**Neurobiology of Aging**	36	1964-8	2015	Yes	**5.26**
25.	Characterization of differential proteome expression of MM1 and VV2 subtypes of sporadic Creutzfeldt-	Tahir W, **Zafar S**, Schmitz M, Llorens F, Arora AS, Younas N, Ferrer I, Zerr I.	Prion	9	S11–S99	2015	Yes	2.04

	Jakob disease (sCJD) in Cerebellum							
26.	Behavioral abnormalities in prion protein knockout mice and the potential relevance of PrP(C) for the cytoskeleton.	Schmitz M, **Zafar S**, Silva CJ, Zerr I	Prion	8	381-6	2014	Yes	2.34
27.	Subtype and regional-specific neuroinflammation in sporadic creutzfeldt-jakob disease.	Llorens F, López-González I, Thüne K, Carmona M, **Zafar S**, Andréoletti O, Zerr I, Ferrer I.	Frontiers in Aging Neuroscience	6	198	2014	Yes	4.504
28.	Subtype and regional regulation of prion biomarkers in sporadic Creutzfeldt-Jakob disease.	Llorens F, **Zafar S**, Ansoleaga B, Shafiq M, Blanco R, Carmona M, Grau-Rivera O, Nos C, Gelpí E, Del Río JA, Zerr I, Ferrer I.	Neuropathology and Applied Neurobiology	41	631-45	2015	Yes	2.91
29.	Characteristic CSF prion seeding efficiency in humans with prion diseases.	Cramm M, Schmitz M, Karch A, **Zafar S,** Varges D, Mitrova E, Schroeder B, Raeber A, Kuhn F, Zerr I.	Molecular Neurobiology	51	396-405	2015	Yes	**5.397**
30.	Anchorless 23-230 PrPC interactomics for elucidation of PrPC protective role.	**Zafar S**, Asif AR, Ramljak S, Tahir W, Schmitz M, Zerr I.	Molecular Neurobiology	49	1385-99	2014	Yes	**5.137**
31.	Detection of infectivity in blood of persons with variant and sporadic Creutzfeldt-Jakob disease.	Douet JY, **Zafar S**, Perret-Liaudet A, Lacroux C, Lugan S, Aron N, Cassard H, Ponto C, Corbière F, Torres JM, Zerr I, Andreoletti O.	**Emerging Infectious Disease.**	20	114-7	2014	Yes	**8.22**
32.	Subtype and regional regulation of prion biomarkers in sporadic Creutzfeldt-Jakob	Llorens F, **Zafar S**, Ansoleaga B, Shafiq M, Blanco R, Carmona M,	Prion	8	121	2014	Yes	2.34

	disease	Gelpí E, Río JA, Zerr I, Ferrer I						
33.	Impact of the cellular prion protein on amyloid-β and 3PO-tau processing.	Schmitz M, Wulf K, Signore SC, Schulz-Schaeffer WJ, Kermer P, Bähr M, Wouters FS, **Zafar S**, Zerr I	Journal of Alzheimer's Disease	38	551-65	2014	Yes	4.151
34.	Detection and quantification of low prion protein levels in the peripheral tissues by capillary electrophoresis	Arora AS, Schmitz M, **Zafar S,** and Zerr I	Prion	8	128	2014	Yes	2.34
35.	Association of prion protein genotype and scrapie prion protein type with cellular prion protein charge isoform profiles in cerebrospinal fluid of humans with sporadic or familial prion diseases.	Schmitz M, Lüllmann K, **Zafar S**, Ebert E, Wohlhage M, Oikonomou P, Schlomm M, Mitrova E, Beekes M, Zerr I.	Neurobiology of Aging.	35	1177-88	2014	Yes	5.51
36.	Association of prion protein geno- and PrPSc type with PrPC charge isoform profiles in cerebrospinal fluid of humans with sporadic or familial prion diseases	Schmitz M, Lüllmann K, **Zafar S**, and Zerr I	Prion	8	137	2014	Yes	2.34
37.	PrP mRNA and protein expression in brain and PrP(c) in CSF in Creutzfeldt-Jakob disease MM1 and VV2. Prion.	Llorens F, Ansoleaga B, Garcia-Esparcia P, **Zafar S**, Grau-Rivera O, López-González I, Blanco R, Carmona M, Yagüe J, Nos C, Del Río JA, Gelpí E, Zerr I, Ferrer I	Prion	7	383-93	2013	Yes	2.26
38.	Structural consequences of native post-translational modifications of the prion protein: A mechanism for toxicity	**Zafar S**, Asif AR, Ramljak S, Tahir W, Schmitz M, Zerr I	Prion	7	81–104	2013	Yes	2.26
39.	Proteomics approach to identify the interacting	**Zafar S**, von Ahsen N, Oellerich M,	Journal of Proteome Research	10	3123-35	2011	Yes	5.113

	partners of cellular prion protein and characterization of Rab7a interaction in neuronal cells	Zerr I, Schulz-Schaeffer WJ, Armstrong VW, Asif AR.						
Total Impact Factor								**169.176**

(b) National/ International Conference Papers

Sr. #	Title of Publication	Conference	Year	Venue
1.	Risk modifiers tangled in rapid progression of Alzheimer's disease.,	International conference of Prion 2017	2017	Edinburgh, Scotland, UK
2.	Proteomic Approaches to Identify the Mechanism of rapid progression of Alzheimer's Disease,.	European Proteomics Association (EuPA) HUPO2017	2017	Dublin, Ireland
3.	Proteomic and Alzheimer's Disease: novel approaches to classify the Mechanism of rapid progression,	4th World Congress on Mass Spectrometry,	2017	London, UK
4.	RNA binding proteins in Alzheimer disease	Proteomic Forum 2017	2017	Potsdam, Germany
5.	The prion protein interactome: identifying novel targets in rapidly progressive Alzheimer's disease.	International conference of Prion 2016,	2016	Tokkyo, Japan
6.	CJD : a pre-symptomatic, subtype specific regional and temporal characterization.	International conference of Prion 2015,	2015	Fort Collins, Colorado, USA
7.	Alpha-Synuclein: A potential Cerebrospinal fluid biomarker for differentiation of CJD from AD	International conference of Prion 2015	2015	Fort Collins, Colorado, USA
8.	Characterization of differential proteome	International conference of Prion 2015	2015	Fort Collins, Colorado, USA.

	expression of MM1 and VV2 subtypes of sporadic Creutzfeldt-Jakob disease (sCJD) in Cerebellum			
9.	Epidemiological Evaluation and Surveillance	Priority meeting	2014	Brussel, Belgium
10.	Human prions – distinguishing sporadic from genetic forms via structure and function	HAI meeting	2014	Trieste, Italy
11.	ZNE-GBA study: Markers in GBA-associated PD (MIGAP) -early detection, progression, mechanisms, protection	NGFN meeting,	2013	Tübingen, Germany
12.	Characterization of time-dependant evolution of brain and blood proteomes from MM1-and VV2-infected Met129 and Val129 mice	DZNE meeting,	2013	Göettingen, Germany
13.	Interactive role of Arf1 and Alpha tubulin-1 protein during the intracellular transportation of PrP^{C}.	International conference of Prion 2012	2012	Amsterdam, Netherlands
14.	Proteomics to Genomics: Involvement of Peripheral organs In Tauopathies and Prionopathies.	KNDD meeting	2012	Würzburg, Germany
15.	Proteomics and Interactomics – Approaches to Novel Biomarkers	DEMTEST. JPND meeting	2012	Hannover, Germany
16.	Gender and PrPC dependent expression pattern of Tau, P-Tau and APP in the liver of PrPC knockout mice.	International conference of Prion 2012	2012	Amsterdam, Netherlands.
17.	Biomarker based diagnosis of rapid progressive dementias-optimisation of diagnostic protocols-.	DEMTEST	2012	Hannover, Germany

18.	Characterization of time-dependant evolution of brain and blood proteome alterations induced by various sCJD strains.	Priority International Conference,	2011	Goettingen, Germany.
19.	Protecting the food chain from prions: shaping European priorities through basic and applied research.	Priority International Conference/Consortium,	2011	Goettingen, Germany.
20.	Human cellular prion protein (PrPC): Human Cellular Prion Protein (PrPC):Identification of Novel Interacting Partners & Characterization in association with endosome and microtubules	Goettinger Transporttage. Conference	2010	Goettingen, Germany
21.	Human cellular prion protein (PrPC): Distribution and co-localization with early endosome in a neuronal cell line	6th. Jahrestagung der DGKL Deutsche Vereinte Gesellschaft für Klinische Chemie und Laboratoriu-msmedizin,	2009	Mannheim, Germany.
22.	Molecular interaction of human Prion protein and cytoskeleton associated proteins.	International conference of Prion 2009	2009.	Thessaloniki-Chalkidiki, Greece
23.	Cellular Prion protein (PrPC): Localization & Identification of Interacting Proteins using STrEPTM technology and proteomics.	6th Meeting (Prion screen project-Development of a blood screening assay for diagnosis of prion, diseases in humans),	2009	Berlin, Germany.
24.	One-STrEP-tagged human prion protein expression, purification, localization and identification of interacting proteins in mammalian cell line,	5th. Jahrestagung der DGKL Deutsche Vereinte Gesellschaft für Klinische Chemie und	2008	Mannheim, Germany.

	Clinical chemistry and laboratory medicine, 2008; 46(9):A175**.**	Laboratoriumsmedizin		
25.	Cellular Prion protein (PrPC): Localization & Identification of Interacting Proteins using STrEPTM technology and proteomics.	3rd Meeting of Prion screen project-.	2009	Göttingen, Germany
26.	One-STrEP-tagged human Prion protein expression, purification, and localization in mammalian cell line	3rd Meeting (Prion screen project Development of a blood screening assay for diagnosis of prion, diseases in humans)	2008	Bratislava, Slovakia
27.	One-STrEP-tagged human prion protein expression, purification, localization and identification of interacting proteins in mammalian cell line".	6th.Jahrestagung der DGKL Deutsche Vereinte Gesellschaft für Klinische Chemie und Laboratoriumsmedizin,	2008	Leipzig, Germany
28.	Cloning of Human Prion protein with One Strep TM-tag, site directed Mutagenesis and Expression analysis in HEK293 and HpL3-4 cell lines	2nd Meeting -Prion screen project- Development of a blood screening assay for diagnosis of prion diseases in humans.	2008	Krakow, Poland

(c) <u>Book/ Book Chapter Written</u>

Sr. #	**Title**	**Subject/ Description**	**Publisher** (if any)
1.	Cerebrospinal fluid in Creutzfeldt–Jakob disease Authors: Zerr I, **Zafar S,** Schmitz M, and Llorens F.	Handbook of Clinical Neurology, Vol. 146 (3rd series) Cerebrospinal Fluid in Neurologic Disorders F. Deisenhammer, C.E. Teunissen and H. Tumani, Editors	© 2017 Elsevier B.V. All rights reserved

		http://dx.doi.org/10.1016/B978-0-12-804279-3.00008-3	
2.	Kinase (Protein Kinases). update Authors: **Zafar S**, Zerr I.	Brenner's Encyclopedia of Genetics, 2nd edition: update 31 October 2016, Pages 166–167	Elsevier Ltd. 2013 All rights reserved
3.	Kinase (Protein Kinases). Authors: **Zafar S**, Zerr I.	Brenner's Encyclopedia of Genetics, 2nd edition: 2013, Pages 166–167	Elsevier Ltd. 2013 All rights reserved

(d) **Lab Manual**

Sr. #	**Title/ Topic**	**Subject/ Description**	**Publisher** (if any)
1.	Arbeiten mit und Dekontamination von Materialien, die Prion-Protein für die massenspektrometrische Analyse	*(Working with and decontaminating materials containing Prion protein for mass spectrometric analysis)*	UMG; GÖTTINGEN
2.	Gefährdungsbeurteilung nach BiostoffV: Gefährdung durch Prionen (TSE)	Infectious level S3 safety instructions manual	UMG; GÖTTINGEN